DOCUMENT RESUME

ED 023 690

24

TE 499 971

By-West, Edith; And Others

Preparation and Evaluation of Social Studies Curriculum Guides and Materials for Grades K to 14. Final Report.

Minnesota Univ., Minneapolis.

Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.

Report No-HS-045

Bureau No-BR-5-0659

Pub Date Aug 68

Contract-OEC-3-10-106

Note-459p.

EDRS Price MF-$1.75 HC-$23.05

Descriptors-Behavioral Sciences, *Curriculum Development, *Curriculum Evaluation, *Curriculum Planning, Economics, Elementary Education, Geography, History, Inquiry Training, Inservice Programs, Instructional Materials, Non Western Civilization, Political Science, Primary Education, Secondary Education, Social Sciences, *Social Studies, Social Studies Units, Sociology

The Minnesota Social Studies Curriculum Center has developed a social studies curriculum for grades K-12. Recommendations for grades 13-14 have not been made yet. The curricular framework provides continuity and sequence for those key concepts, generalizations, skills, and attitudinal behaviors identified as goals for the program. The curriculum provides increased emphasis upon the non-western world, behavioral sciences, structure in disciplines, the study of value conflicts, teaching pupils inquiry methods, and inquiry teaching-strategies. The program is designed for pupils of different ability levels. The Center has prepared resource units and a general guide at each grade level and has written some pupil materials to supplement those available commercially. Courses and units have been field-tested and revised in the light of teacher feedback. The Center has experimented with an inservice training program which employs teachers who have taught the new courses to train other teachers. Questionnaire studies have been used to obtain reactions of teachers to materials and to inservice programs. Two careful evaluation studies have been conducted: one of the seventh-grade sociology course and one of the primary-grade materials. (Author/SW)

BR. 5-0659
PA-24

FINAL REPORT
Project No. HS-045

Grant No. OE 3-10-106

PREPARATION AND EVALUATION OF SOCIAL STUDIES CURRICULUM GUIDES AND MATERIALS FOR GRADES K to 14.

August, 1968

ED023690

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

TE 499971

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

FINAL REPORT
Project No. HS-045

Grant No. OE 3-10-106

PREPARATION AND EVALUATION OF SOCIAL STUDIES CURRICULUM GUIDES AND MATERIALS FOR GRADES K TO 14

Director: Edith West

University of Minnesota

Minneapolis, Minnesota

August, 1968

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

TABLE OF CONTENTS

Chapter		Page
	Summary	1
I.	Introduction	6
II.	Problems Faced and Approaches Used in the Curriculum Design	19
III.	Analysis of the Curriculum	54
	Part I. The Curriculum Design	54
	Part II. An Analysis of the Curriculum Design	103
IV.	Evaluation Findings	174
V.	Conclusions and Recommendations	208
Appendix		
1.	An Evaluation of Man and Culture, A Behavioral Science Course Developed by the Minnesota Project Social Studies Curriculum Development Center	221
2.	An Evaluation of Selected Aspects of the Project Social Studies Curriculum (Primary Grade Materials)	322
3.	Questionnaire Forms Used in Evaluation of In-Service Training Program	355
4.	Chelmsford Evaluation of Social Studies Program	362
5.	The Social Science Disciplines in the Minnesota Project Social Studies Curriculum	373
6.	The Sequential Development of Generalizations	378
7.	The Sequential Development of Concepts	413
8.	The Sequential Development of Skills	423

9. The Sequential Development of Attitudinal Behaviors 442

10. Data on Questionnaire Study of Year-Long In-Service Training Program in Minnesota 445

11. An Example of One Page Showing Development of Generalizations in One Course 454

ACKNOWLEDGEMENTS

The curriculum materials produced by the Minnesota Center are the work of many people. The principle investigators when the study was undertaken included the director, Edith West; the research director, William E. Gardner ; Fred A. Johnson; and Vincent R. Rogers. These staff members in education were joined by Everett T. Keach and by the following social scientists: Robert F. Berkhoffer, Jr., Frank Sorauf, Jr., Caroline Rose, Shirley Holt, Frederic R. Steinhauser, and Roman Warmke. Many other social scientists contributed to the work of this project. Leo Hurwicz prepared a background paper on economics and directed the development of simulation games in economics. Darrell Lewis prepared several background papers and offered numerous suggestions on the economics units. Robert Holt and John Turner prepared background papers for the eleventh grade course. Professors Arnold Rose, Jan O. M. Brock, Harlan M. Smith, and John S. Chipman discussed their respective fields with the staff. Fred Lukerman prepared a major part of the discipline paper on geography, and John Borchert made other suggestions on the field of geography. Staff members also consulted many other social scientists and members of the staff in the College of Education.

A number of staff writers worked during the summer months and during the school year to prepare units and pupil materials. Not all can be mentioned here, but those making major contributions included Genevieve Berkhofer, Robert Beery, Stuart Stockhaus, Daniel Eckberg, Michael Rockler, Diane Monson, and James Olson. A visiting staff member, Bernard Spodak, was primarily responsible for writing the kindergarten units. Another visiting instructor, Edwin Groenhoff prepared these units for the fourth grade course. The many classroom teachers and other visiting college staff members who prepared materials for the Center are too numerous to mention. They are listed in the guides for the different grade levels. The staff is indeed grateful to these writers and to the many teachers who have tried out the materials and made numerous and helpful suggestions for additions and changes.

The director of the project also wishes to thank Fred A. Johnson and Everett T. Keach for their thoughtful suggestions after reading a first draft of this final report.

SUMMARY

In the spring of 1963, the University of Minnesota received a grant from the Office of Education to develop a new, sequential curriculum in social studies. The investigators began their work with a number of assumptions, including the belief that there should be much more emphasis upon the behavioral sciences and the non-western world than in the past, that the program should be designed to meet the needs of pupils of different ability levels, and that the broad goal should be citizenship education which requires considerable emphasis upon the development of inquiry skills as well as a sound knowledge of the social sciences.

The specific objectives outlined for the Center are listed below:

(1) Identification of major concepts and generalizations which comprise possible structures for the various social science disciplines and identification of the methodology and important techniques used to advance knowledge in each field.

(2) An attempt to assess the possibilities of developing an integrating framework or structure for the social sciences as a whole. This attempt would involve a study of the points of divergence and convergence among the social sciences.

(3) Identification of those concepts, skills and attitudes most appropriate for inclusion in the social studies curriculum.

(4) Establishment of a curricular framework for grades K-12, with a few suggestions for grades 13-14.

(5) Development of teacher guides and resource units for grades K-12, illustrating the content to be taught and the ways in which the material can be presented. These guides might suggest the use of or modification of existing resource units and materials developed elsewhere where such materials seemed appropriate.

(6) Development of sample pupil materials at various grade levels where such material was not available but was needed to field test the courses suggested in the curricular framework.

(7) Preparation of explanatory materials for use by teachers to aid in their understanding of the point of view of the Curriculum Center as well as their use of resource units and pupil materials.

(8) Training of a selected group of teachers for the use and evaluation of the resource units and pupil materials in their schools.

(9) Development of evaluation instruments where needed. Field tests and evaluation of the resource units and pupil materials, including controlled research at some levels.

The Center undertook its work with an interdisciplinary staff of social scientists, social studies specialists and classroom teachers. Staff members worked for nearly a year before they developed a curricular framework. The identification of objectives one and two as the basis for work on objectives three and four did not imply any intent to neglect other sources for curriculum objectives and other criteria for selecting and organizing content and learning experiences. The staff examined the social science disciplines, looked at the implications of learning theory and studies of learners for curriculum development, identified important social trends and problems in the country and world, and considered a series of philosophical questions such as the appropriate role of the school in a democratic society and the role of a social studies program in developing values. On the basis of this early work, the staff identified goals for the curriculum, developed a list of criteria for selecting content, and considered principles for organizing content from one grade level to another and within each grade level. The staff selected the anthropological concept of culture to provide the thread to tie the entire curriculum together. It developed a curricular framework to provide continuity and sequence for those key concepts, generalizations, skills, and attitudinal behaviors which had been identified as goals. In these preliminary stages of work, staff members developed a series of background papers on each of the social sciences, on the social sciences as a whole, on learning principles, on skills, on values, and on concepts, generalizations and theories.

The Center proceeded to develop resource units and pupil materials where they were needed so that the curricular framework could be tried out in public schools. In two subsequent summers, it brought together a group of teaching associates from local schools for a workshop to prepare them to teach the courses. The courses at grades K-3, 7-8 and 10 were tried out beginning in the school year of 1965-1966 and those at 4-6, 9, and 11-12 during the school year of 1965-1967. Staff members visited classes, held conferences with teachers, and studied weekly written evaluation reports from the teachers using the materials. Course materials have been revised in the light of this field experience.

Overall teaching guides have been prepared for each grade level. Each guide is designed to help teachers understand the general focus of the course, the objectives of the course, the relationship of the course to the rest of the curriculum, the teaching strategies used, ways of adapting resource units to specific classes, and the sequential development of concepts, generalizations, skills, and attitudinal behaviors from one unit to the next within the course.

The field tests of materials have been conducted largely within the local area to facilitate direct observations by and personal consultation with staff members. However, two school systems in other parts of the country have been trying out certain parts of the curriculum, using different techniques for implementing the courses. These two systems are providing the Center with information which should aid them in future implementation efforts.

Although most of the research related to both the curriculum itself and ways of implementing new curricula have had to await the completion of the developmental phase of the project, some formal types of evaluation have been used in addition to the less formal feedback from teachers using the courses. Two studies were conducted with funds from other agencies. The Minnesota National Laboratory, the research arm of the Minnesota State Department of Education, conducted an evaluation study of the seventh grade sociology course, since this course provides the greatest departure from the more traditional curriculum. A graduate student, with funds from the same source, conducted a study of the primary grade materials using a group interview technique with children. These reports are appended in full to the final report.

Two questionnaire studies have also been conducted. One has been used to obtain data from principals and participating teachers involved in a new type of in-service training program. This program used teachers trained in summer workshop programs who had taught the new courses successfully to train other groups of teachers at their grade level. The questionnaire assessed attitudes of participants toward both the in-service program and the new courses which they were teaching. The other questionnaire study was conducted by the social studies consultant in one of the associated schools which is located at a great distance from the Center. This questionnaire was designed to obtain the reactions of teachers to the individual units which they taught during the last half of the school year of 1967-1968.

The final report of the project includes several chapters other than that on evaluation findings which should prove of particular use to those interested in the Center's curriculum or in the task of developing a new K-12 curricular sequence. First, it includes a description or case study of how a social studies curriculum center, using an interdisciplinary staff, has worked through the various tasks confronting curriculum developers. This description identifies the kinds of problems which staff members face if they decide to develop a curricular pattern which differs greatly from the old one and to implement such a curriculum in the public schools. Second, the final report provides the rationale for the curricular framework and includes an analysis of that framework.

The Center's staff has not been able to accomplish all that it set out to do or wanted to do. The Center had planned originally to develop a K-12 curriculum with additional suggestions for appropriate junior college courses to follow the K-12 sequence. Limitations of time and money led the staff to postpone making suggestions for the junior college level. Second, the staff has been unable to revise all of the materials before the second year of tryout in the public schools. This means that it does not have teacher feedback on all of the revised materials which are being submitted to the Office of Education. Moreover, several units, coming at the end or near the end of three courses, have not been taught in the public schools so far, since teachers have taken longer to teach earlier units than will be required once pupils have come through the earlier sequence upon which the courses are built. Third, although the staff has developed many pupil materials, more materials would make the job of teaching the courses easier. Staff members see a particular need for more reading materials at different reading levels, somewhat like those developed at three different reading levels for the eighth grade course. The director of the project believes that some of the background papers on disciplines are of uneven quality, and that perhaps more time should have been spent on the preliminary identification of key concepts and generalizations in the different fields. However, the Center faced a time deadline. It was also trying to develop a model to illustrate how continuity and sequence of concepts, generalizations, skills, and attitudes can be developed within a K-12 curriculum and the tasks which must be undertaken to do such a job. The curricular framework developed is designed to permit change in the light of new world events, changes in the disciplines, and feedback from teachers. A serious lack of funds made impossible some of the revisions which the director would like to see undertaken and also limited the efforts at dissemination about the project and the kinds of research which the staff wished to undertake.

Although staff members believe that the Center's curriculum materials need more evaluation, their tentative conclusions are that the materials are proving effective in achieving goals, even though they are uneven in quality and some need further modification. Staff members certainly do not believe that this program offers the only possible curricular model to achieve these goals, but they do consider it promising enough to warrant further implementation in schools and further evaluation studies.

The Center faces a number of tasks now that the initial developmental phase has been completed. First, it needs to conduct a number of research studies both on the curriculum itself and on ways of implementing new curricula in schools. Research on the curriculum involves both short-range research on individual courses and long-range research on the impact of the total sequence of courses. Second, the Center needs to attack the problem of dissemination which a lack of funds has made impossible up to this point. Finally, the Center ideally should engage in a continuing task of revising materials in light of evaluation studies and changes in the world and in the social science disciplines.

CHAPTER ONE: INTRODUCTION

The Minnesota Curriculum Center has had as its major goal the development of a new social studies curriculum for grades K-12, with some suggestions for grades 13-14 in communities with junior colleges. The Center set for itself the task of developing a curriculum, trying it out in public schools, revising materials in the light of this try-out, and evaluating selected courses.

It was recognized from the beginning that complete evaluation would be impossible, given the funds and time available. Much needed research must await future study. Such research involves a second stage of any development project, even though some evaluation is an integral part of the developmental phase of curriculum work. Carefully controlled research in the future should provide further help to those engaged in revising and reworking materials developed under this first grant. Some of the research problems envisioned by this staff and raised by its work so far are discussed in chapter five. Research to date is presented in chapter four, with two research studies reported in full in Appendices one and two.

Before the Center began full scale operations, the major investigators identified some of their major assumptions about curriculum development in the social studies and outlined the major objectives for a curriculum project. Since their objectives can be understood only in terms of the assumptions with which they began their work, these assumptions need to be stated at the outset.

The first and most obvious of these original assumptions was that the social sciences have much to offer the individual in terms of helping him understand the world around him and cope with problems of the modern-day world. The social sciences should be part of the general education of all pupils.

Related to this major assumption were the following more specific assumptions:

(1) The behavioral sciences, which have been neglected in the past, are rich sources for a social studies curriculum which is designed to prepare pupils for the modern world. In some ways, the behavioral sciences have more relevancy than the more traditional history content. Therefore, the social studies curriculum should provide increased emphasis upon the behavioral sciences.

(2) The social studies program should be designed to develop better consumers of social science materials,

not budding young social scientists, although hopefully the program will attract some pupils to advanced study in one or more of the social science disciplines. To achieve this end, the social studies program should help pupils understand the common outlooks and techniques of the social sciences as well as the special perspectives and methods by which the practitioners of each discipline advance knowledge in their field. The program should also help pupils learn key concepts and major ideas from each of the disciplines, with the greatest emphasis upon those concepts and ideas which are of importance in a number of the social science fields and which are useful analytical tools for making sense out of new data.

(3) It is important to develop a viable program to provide for the needs and interests of a great range of pupils of different abilities, cognitive styles, interests, and backgrounds. Special courses for the gifted students or for disadvantaged pupils have their place. However, it is more important to develop a curriculum which makes provision for individual differences among the entire student population.

A second and equally-obvious assumption of the investigators was that the social studies curriculum needed improvement and that this improvement could be achieved best by the cooperative efforts of social studies specialists, social scientists representing the different disciplines, and classroom teachers.

The investigators analyzed some of the reasons for this need for change in the curriculum in its original proposal for funds from the Office of Education.

> Demands for curricular revision have been brought about by a number of developments. Most notable have been changes taking place in society. The present secondary school curriculum, with but few modifications, grew out of a commission report made in 1916. The elementary school program has changed much more since that time, but it too suffers from a failure to keep up with societal changes. The social science curriculum must take account of changes in the world scene in which new countries and areas have become of great international significance, in which new ideological conflicts and new social, economic, and political upheavals are revolutionizing the world. An increase in culture contact makes a knowledge of world affairs far more important than it was in 1916.

The social studies curriculum must adjust to the rapid developments in science and technology with their great potential for either progress or disaster, the outcome depending upon how well man learns to control them with the use of knowledge from the social sciences. Along with scientific and technological changes have come changes in economic, social, and political institutions, not so much in structure as in role, size, and power. Within the United States there has been a shift from a rural to an urban population with many consequent social problems, including those arising from closer and more numerous contacts among individuals and groups than in the past. The social studies curriculum must provide increased attention to problems arising from scientific and technological changes.

The social studies curriculum is in imperative need of revision because of the great growth of knowledge among social science scholars. The older social sciences are being reinterpreted in the light of new information. New methods are being used to gain knowledge. New theoretical frameworks are being developed. In addition, several disciplines, almost ignored by the present curriculum, have made great progress in the accumulation of knowledge and the development of theories which can help pupils understand people's behavior individually and in groups. Anthropology, psychology, social psychology, and several branches of political science, such as comparative government and political behavior, are rich sources for a social studies curriculum designed to prepare pupils for the modern world.

The social studies curriculum needs revision in the light of new discoveries in the field of education. Scholars working on the psychology of learning and those trying out new curricula in mathematics, science, and economics are challenging older ideas about readiness and the age level at which concepts and skills can be introduced successfully. Educational psychologists are developing theories about the teaching of the structure of a discipline in order to promote understanding, retention, and application of knowledge to new problems. Results of research based upon present social studies offerings have shown an appalling lack of retention of knowledge, lack of progress in the development of skills, and a frightening lack of interest in and respect for the social sciences.

A third major assumption of the staff was that a social studies curriculum should be designed to help achieve the broad goal of citizenship education. From the geginning, the investigators assumed that there is no dichotomy between good social science and this aim. No one can be an effective citizen[1] in the contemporary world unless he has a good grasp of some of the basic ideas of the social sciences and, more important, the inquiry tools and perspectives which will help him understand new developments.

Given this broad goal of citizenship education, certain other assumptions follow:

(1) A major criterion for selecting topics for study should be the importance of the topic in helping pupils understand the modern, rapidly-changing world in which they live. Many topics could be used to teach the basic concepts of the different fields. Geographical concepts and perspective, for example, could be studied through concentration upon some small, relatively insignificant and unknown part of the world or they can be studied while investigating an area of world-wide importance. Given the goal of citizenship education, however, most of the topics selected for study should be related to significant aspects of the modern world--to trends and to relatively persisting problems which face the people of the world. Pupils should be introduced to the major areas of the world, since events in these places can have such an impact upon their lives. The social studies should give greatly increased attention, therefore, to the non-western world and to international relations.

(2) The first criterion implies a second--namely, that a curricular framework should lend itself to change in the light of new developments in the local area, nation, and world, as well as to new developments in the social sciences themselves, without requiring drastic changes in the overall framework within only a few years.

(3) The social studies program should emphasize thinking processes needed by citizens. In a democracy, the goal should be a thinking citizen, not a person who accepts ready-made ideas without critical examination. The investigators for this project have given high priority to this goal of developing the ability to inquire. However, thinking does not take place in a vacuum; pupils can learn to think only by thinking

---

[1] No attempt will be made at this point to define the behaviors believed important for good citizenship in a democracy. This is done briefly in chapter three.

about something. Certain content may lend itself better than other topics to stimulating inquiry. Certainly, the goal of developing skills of inquiry should be kept in mind in selecting content to be studied. Usually, however, other criteria can play an important part in this selection, since pupils can learn to inquire by studying many different kinds of topics. This goal of developing thinking processes should have as much influence or more influence upon teaching strategies and the selection of specific learning experiences within units as upon the selection of content for study. Since concepts become tools of inquiry, moreover, attention must be given to developing key analytical concepts from the social sciences.

(4) The curriculum should provide opportunities for pupils to examine value conflicts in our society and to examine and clarify their own positions on these conflicts. Pupils should learn to identify value conflicts and the factual questions needing investigation as they examine such conflicts. They should learn to use the social sciences to help them identify probable consequences of following different value positions and to select the course of action most likely to achieve their carefully-thought out goals.

The investigators did not come to any conclusions until after the Center began operating about the value conflict over whether or not the social studies program should attempt to teach values, not just teach about values as social data. For a discussion of the position which the Center eventually reached after lengthy discussions, see Background Paper #11 and pages 109-113 below.

(5) A social studies program should include some topics which will help pupils understand themselves and hopefully help them in the task of developing their own philosophy of life. One study has concluded that emotional adjustment is the most crucial factor in good citizenship behavior around a school and neighborhood.[2]

Although emotional adjustment is not sufficient for the good citizen, it is important, particularly in a democracy.

---

[2] Stanley E. Dimond, Schools and the Development of Good Citizens (Detroit: Wayne University Press, 1953), pp. 40-41.

Studies of prejudiced personalities, of the people who join authoritarian movements, of those who are politically apathetic, or those who are alienated from society would tend to justify educational attempts to promote emotional adjustment partly in terms of the goal of developing good citizens. There is no empirical data to show that studying any specific topics will help pupils become better adjusted emotionally. Certainly, it is probable that the ways in which teachers treat pupils, their teaching strategies and techniques, and the kinds of interaction among pupils which they promote are more effective than any content in helping pupils develop a positive self-image and emotional adjustment. However, staff members believed that the study of topics which would give pupils a chance to look at themselves and their relations with others, examine their own value conflicts, and consider their goals might have some impact upon emotional adjustment. Although this hypothesis needs testing, staff members felt that it was worth exploring and that some topics should be selected for study because they relate to the immediate interests and concerns of pupils, not just to societal problems.

(6) A curriculum should be designed to create continuing interest in the social sciences. No matter how useful a curricular design in teaching concepts, generalizations, and skills, it would be detrimental to the goal of citizenship education if the program were to lead to the development of a dislike for the social sciences. A well-planned and interesting program should stimulate pupils to continue to follow current affairs and to read, listen, and study topics from the social sciences.

A fourth major assumption of the investigators was that a curriculum needs to be developed as a coordinated program from grades K-12 or even K-14 for communities with junior colleges, rather than piecemeal at either each school level or within one social science discipline. The investigators felt strongly about this belief, strongly enough to undertake such a massive curriculum development project despite the relative paucity of funds available for such a project as compared to those available for other curricular programs with a much narrower focus.

This belief in the need for K-12 curriculum revision is based upon a series of other assumptions:

(1) The curriculum should give much greater attention than at present to the problem of sequential learning. If pupils are to learn and use skills, concepts, and generalizations or to develop attitudes, they must

encounter situations designed to teach for such objectives upon many occasions throughout their school years. A carefully designed program to provide continuity and sequence would give them a chance to deepen and refine their understandings and skills as they advance in school. Repeated encounters with carefully sequenced skills, concepts, and generalizations promotes transfer of learning to new situations which pupils may encounter in the future, since pupils experience many occasions in which they find past concepts, generalizations, and skills helpful to them as they try to make sense out of new data. Moreover, A K-12 curriculum should provide opportunities for cumulative experiences designed to reenforce each other in order to develop desired attitudinal goals--goals which research findings indicate are not easily achieved through single, isolated experiences. (A further analysis of this assumption about sequencing is found in Background Paper #10 on "The Implications of Learning Theory for Curriculum Development," p. 8 .)

Not only should attention be given to developing sequential learning, but provision must be made to help teachers understand this sequence and make use of previous learning. At the present, the failure of many teachers to pay attention to what has gone before is due in part to ignorance, in part to the belief that there is no carefully prepared sequence. Other factors are also important, but the investigators assumed that teachers would pay more attention to what their colleagues were doing if they could be certain that a sequence had been developed carefully and specifically and if this sequence could be communicated to them.

(2) Appropriate grade placement of topics, concepts, and skills should be reconsidered in the light of new developments in the psychology of learning and the findings of those who have been working with new materials at the elementary school level. The greatly increased mobility in American society and the widespread ownership of television sets have meant that children come to school with different knowledge and interests than children had years ago when the curricular framework based upon the expanding environment was developed. Some studies indicate that children in the primary grades have a high level of interest about peoples in other parts of the world.[3] The

---

[3] For example, see Kenneth Wann, M. Dorn, and E. Liddle, Fostering Intellectual Development in Young Children (New York: Bureau of Publications, Teachers College, Columbia University, 1962).

findings suggest that the expanding environment framework may be outmoded and that a new one might be substituted to introduce children more quickly to other parts of the world and to peoples of other countries.

Existing research does not provide a complete guide to grade placement, since much of it is based upon what can be learned, given traditional programs in the courses upon which the research has been conducted or traditional programs prior to such courses. What could be taught given other kinds of courses or earlier preparation requires much additional research. However, some research findings do suggest that many concepts and skills can be taught earlier than previously supposed.[4] Moreover, other research findings suggest that the traditional placement of some topics may come too late to have much effect upon certain attitudes in which social studies educators are interested. For example, studies on political socialization raise questions about whether or not some content dealing with our political system should be taught earlier than in the past, since many pupils enter high school with their political attitudes fairly well developed but with little intellectual undergirding for these attitudes.[5] General research on changing attitudes and on attitudes of children toward other races suggests that concepts and topics designed to affect attitudes toward diversity among peoples or other races or nations might be more effective if introduced very early in the curriculum.

The investigators involved in this curriculum development project believe that a number of curriculum questions need to be investigated. These would include such questions as: (a) Can specified concepts be taught effectively in earlier grades? (b) How much time is needed to teach them at these levels as compared to the time needed to teach them equally well at later levels? (c) To what extent do pupils make use of concepts and skills taught in the earlier years as they encounter new data in later grades? (d) What happens to pupils' interest in social studies if these concepts are taught at earlier levels? (It might be unwise to teach them even if they can be taught successfully, if to do so blunts pupils' interest.) (e) Does the introduction of some concepts have other kinds of adverse effects? For example, will content about peoples of other countries or races lead to stereotypes if introduced too early or lead to attitudes just the opposite of those desired by the curriculum developers? Will teaching children that peoples in other societies have different ways of living and different values which seem right and natural to the people of those societies make it more difficult for American children to internalize the values of their own society? How early can such ideas be introduced without running this danger, if it should prove to be one at the earliest grade levels? Will introducing pupils to realistic ideas about political decision-making and political power earlier than at present lead to political cynicism, feelings of political inefficacy, and apathy? These are but some of the questions which need investigation.

---

[4] For example, see J. D. McAulay, "Social Studies in the Primary Grades," Social Education, 18:357-358 (December, 1954); Gloria Cammarota, "New Emphases in Social Studies for the Primary Grades," Social Education, 27:77-80 (February, 1963); Bernard Spodek, "Developing Social Science Concepts in the Kindergarten," Social Education, 27:253-256 (May, 1963).

[5] Since the Center began its operations, much additional work has been done in examining political socialization among children and youth. These studies are now summarized in John J. Patrick, Political Socialization of American Youth: Implications for Secondary School Social Studies, Research Bulletin No. 3 of the National Council for the Social Studies (Washington: The National Council for the Social Studies, 1967).

The present investigators are not trying to answer all of these questions. To conduct research on these questions requires the previous development of curricular programs which include an earlier grade placement of concepts, topics, and skills. The University of Minnesota Curriculum Center is involved in such a curriculum development project. It has conducted a little research in an attempt to answer some of the questions raised, but most of the research needed must await more time, more funds, and/or more graduate students interested in research topics, and hopefully alternative curricular programs attempting to teach some of the same concepts, skills, and topics at slightly different grade levels or through different approaches. Nevertheless, sub-assumption #2 contributed to the belief of the Minnesota investigators that curriculum development should be concerned with the total K-12 curriculum.

(3) The present curriculum is much too crowded, and there is too much duplication of topics. Where new subject content has been added to keep the program abreast of changing social trends, little has been removed from the curriculum. The resulting overcrowded program leads to such a superficial treatment of topics that it is unlikely to be successful in developing significant understandings, skills, or interest in the social

studies. The social studies curriculum must provide enough selectivity so that pupils will study topics in depth. Time must be found some place in the curriculum to teach those skills and ideas thought most important.

In part, this problem can be attacked by reducing the duplication which exists within the traditional curriculum--duplication frequently without increased depth or analysis, which leads to boredom for students who have studied similar topics in the past. This duplication has been both planned and unplanned. Some repetition of topics was planned because these topics were thought crucial for the many pupils who dropped out of school after the elementary grades or at the end of junior high school. It was thought wise to expose these pupils to certain topics, even though more careful attention to the topics might be preferable later for those students remaining in school. Or repetition was planned to ensure that pupils would really learn the repeated content. Unplanned duplication also crept into the curriculum as teachers, working independently, tried to make their courses more relevant to what was happening in the world around them. To eliminate duplication, provide for sequenced learning, and find time for study of topics in some depth requires a look at the total curriculum, not just at one or two levels at a time.

(4) Balance among the different social sciences cannot be achieved without a new look at the total curriculum. As stated earlier, the investigators believe that the curriculum should provide increased emphasis upon the behavioral sciences which are of growing importance today both in terms of their relevance to today's problems and in terms of their prestige in academic circles. These social sciences were considered far less important in 1916 when the basis for the present secondary curriculum was laid in a report by a national commission, or even when the now-traditional sequence was developed for the elementary school some years later. If more time is to be found for study of these fields, the treatment of other fields must be reduced and brought into balance. Something can be done by changing emphases within existing courses, by including more emphasis upon economic, political and sociological analysis within history courses, for example. However, a piecemeal approach is not nearly so satisfactory as a complete new look at how the social sciences can be fitted together in a balanced program to achieve varied goals.

> A number of curricular projects are designing new courses or even sequences of courses for one social science discipline. Although these projects may pay little attention to the problem of balance, in the long run, schools must consider the problem. A curriculum center should provide this help by developing a coordinated program from the kindergarten through grade twelve.

Basically, then, the problem confronting the Minnesota Social Studies Curriculum Center was that of using a team of specialists in social studies education, social scientists, and classroom teachers to prepare a new social studies curriculum which would provide for sequential development of concepts, generalizations, skills, and attitudinal behaviors from grades K-12. Such a curriculum would also necessitate, in all probability, some modifications in college courses if duplication were to be avoided.

The specific objectives outlined for the Center are listed below:

1. Identification of major concepts and generalizations which comprise possible structures for the various social science disciplines, and identification of the methodology and important techniques used in each field for advancing knowledge.

2. An attempt to assess the possibilities of developing an integrating framework or structure for the social sciences as a whole. This attempt would involve a study of the points of divergence and convergence among the social sciences.

3. Identification of those concepts, skills and attitudes most appropriate for inclusion in the social studies curriculum.

4. Establishment of a curricular framework for grades K-12, with a few suggestions for grades 13-14.

5. Development of teacher guides and resource units for grades K-12, illustrating the content to be taught and the ways in which the material can be presented. These guides might suggest the use or modification of existing resource units and materials developed elsewhere where such materials seemed appropriate.

6. Development of sample pupil materials at various grade levels where such material was not available but was needed to field test the courses suggested in the curricular framework.

7. Preparation of explanatory materials for use by teachers to aid in their understanding of the point of view of the Curriculum Center as well as their use of resource units and pupil materials.

8. Training of a selected group of teachers for the use and evaluation of the resource units and pupil materials in their schools.

9. Development of evaluation instruments where needed. Field tests and evaluation of the resource units and pupil materials, including controlled research at some levels.

The identification of objectives one and two as the basis for work on objectives three and four did not imply any intention upon the part of the project investigators to neglect other sources for curriculum objectives and other criteria for selecting and organizing content and learning experiences. The attention given by the staff to these other tasks is made clear in chapter two of this report. Rather, the statement of objectives one and two indicated an emphasis which the investigators found wanting in the traditional curriculum, one which was receiving increased attention in educational literature at the time that this project was initiated, and one which the investigators felt worthy of study. By paying attention to objectives one and two, the staff could develop a curricular program which might be used to test some of the theories then extant about the importance of emphasizing structure in the social studies program.

How the Center has operated, its findings, and the next steps are the subjects of the remainder of this report. Chapter two describes the way in which the Center approached and worked on the tasks of curriculum development in general and the specific objectives which staff members had set for themselves. It is hoped that this description may prove helpful to others who undertake such a task in the future. Chapter three presents the curricular design, describes some of the decisions which affected that design, and analyzes the design in some detail.

Chapter four presents some of the evaluation findings to date. This chapter is short, since most of the controlled evaluation must await the conclusion of the developmental stage. Moreover, the Center's funds could not be stretched to undertake all of the evaluation which staff members desired even during the developmental stage. However, several ways were found to handle the initial phases of a more careful evaluation of courses than could be achieved through the more informal feedback obtained during the early stages of field tryouts. The Center's research director was also director of the Minnesota National Laboratory, the research arm of the Minnesota State Department of Education. He undertook research for the Center, using funds and personnel from the Laboratory. His report was made as a report of that agency and was submitted to the Upper Midwest Regional Laboratory which provided the funds. Since his report was a separate research report, it is included in full in appendix 1 of this report. Furthermore, the Minnesota National Laboratory provided limited funds to a graduate student at the University of Minnesota to undertake an exploratory evaluation of the primary grade materials using a group interview technique. This study was conducted under the general supervision of Professor Everett T. Keach, Jr., a member of the Curriculum Center's staff. Since the study was carried out by a graduate student as part of her graduate program and with funds from another agency, her report is also presented in full in appendix 2. The conclusions of both studies are summarized and analyzed briefly in chapter four, but no attempt is made to describe the design or present the detailed findings within the body of this final report, which focuses instead upon the major goal of the project--the development of a curriculum sequence for grades K-12.

Chapter four also presents findings from brief questionnaire studies of both an in-service training program conducted by the Center under the auspices of the local Educational Research and Development Council and of teachers using some of the materials for the first time. Moreover, the chapter presents some of the findings of the more informal types of evaluation which were carried on as an integral part of the development process.

Chapter five presents conclusions. It summarizes what has been accomplished and analyzes limitations of the project. It also suggests types of research needed as a follow-up to this first stage of curriculum development.

This final report does not include in the appendix all of the materials developed by the Center. For example, it does not include the background papers which were prepared before any attempt was made to develop a curricular framework. Nor does it include the extensive curricular materials prepared by the Center--the materials which were intended to be the chief product of this project. These documents, if piled on top of one another, would reach a height of over six feet. The materials are being submitted to the Office of Education separately and will be available for purchase from the Center at cost.

CHAPTER TWO: PROBLEMS FACED AND APPROACHES USED IN THE CURRICULUM DEVELOPMENT PROCESS

Since the contract with the Office of Education provided for a curriculum development project, not a research project, other considerations than those usually followed must control the format of a final report on the project. Once a curriculum has been developed in extensive detail, of what value can a final report on the project be, other than meeting the demands of fulfilling a contract? Certainly, such a final report can identify basic assumptions and decisions which have affected the kind of curricular framework developed and the arrangement of learning experiences within that framework. Certainly, such a report can explicate the salient features of that curriculum. Such information should prove helpful to those who are weighing the advantages and disadvantages of the curriculum materials and will supplement the other background papers and teachers' guides to curriculum materials which have been prepared earlier. A final report can include findings from early evaluation efforts and can present recommendations about next steps and needed further research. However, in some fashion, a curriculum center engaged in developing a completely new curriculum through an interdisciplinary team ought to do more than this. It ought to provide help to others concerned about a similar task of curriculum development. This report attempts to provide such information in this chapter. The chapter describes the methods and approaches used by the staff in the process of curriculum development rather than the usual research techniques reported by those who have engaged in a research project. Those interested in the research techniques used in evaluating parts of the curriculum are referred to the two research reports included in the appendix to this final report.

The details presented in this chapter about how the staff operated are included to illustrate a curriculum process which is not so formal as that found in most textbooks on curriculum development, even though the tasks identified in such books were carried out. Curriculum development which involves an interdisciplinary team of educators and social scientists must be approached more informally in some ways than the procedures sometimes suggested if the disparate members of the staff, with their different perspectives and skills, are to be welded together into a group which can operate cooperatively in addition to making individual contributions for which each is ideally prepared.

Looking back upon the approaches used, the director of the project believes that some worked very well, some might have been modified, and more formal statements might have been written on some decisions that were made in order to help others not involved in the project understand what was done. Moreover, taped sessions of staff meetings might have proved valuable to illustrate how such an interdisciplinary group has actually operated as it approached the tasks of curriculum building. Certainly, some description of how the staff approached this task should help others who become involved in a similar task. It may help them avoid some of the pitfalls into which this project fell and, hopefully, it may provide some ideas about productive ways of having social scientists and educators work together on the tasks of curriculum building.

There are a number of tasks which any curriculum project should undertake if it is to take advantage of all that has been learned about curriculum development over the years. Some of these tasks need to follow a set sequence; some can be worked on concomitantly or in varying order. Perhaps it is easiest to group curriculum tasks under six stages of curriculum development, even though there will be some overlap between several stages, particularly between the last two stages and the others, and even though later stages may result in some modifications of positions which evolved in the earlier stages.

Stage One: Preliminary Investigations and Decisions

The first stage includes work on five tasks which must be undertaken in order to made decisions about what objectives to identify as well as about the selection and arrangement of content and learning experiences. This stage involves consideration of the various sources for such decisions such as the social sciences from which the curriculum will be developed, a study of society, and a study of learning theory and learners at different levels to be included within the curriculum revision. It also involves considerations of certain philosophical questions related to the role of the school in society and more general philosophical positions about the nature of man, knowledge, and the good life and good society. In addition, this stage involves some diagnosis of strengths and weaknesses of the present curriculum and a survey of research, educational literature, and curriculur proposals made by others that might provide valuable suggestions for what might be done at later stages of curriculum development.

These tasks need not be taken up in any set order, but each is important to the decisions which will follow. The tasks as viewed by the chief investigators of this curriculum center and the ways in which the Center approached them are examined in the next pages.

Although the Minnesota Curriculum Center gave attention to all of these tasks, for strategic purposes the original investigators did not follow the order in which a school curriculum committee might engage in them. The Center was to use a staff consisting of social scientists and educators, many of whom did not know each other well, if at all. Considerable attention has been given to sociological principles and to techniques for inducing curricular change within a school faculty. It was the view of the original investigators that any curriculum center using an interdisciplinary staff must consider what is known about the development of integrated groups and small group theory if such a staff could become an effective working instrument for developing a new curriculum. Although working relationships between the College of Education and the different social science departments in the college of liberal arts have been good, on the whole, it was decided that it might be wise to begin work by focusing upon an examination of the social sciences as individual fields and upon the ways in which they converge and diverge. This work was needed in order to identify some of the goals of the curriculum and as a basis for making decisions about the curricular design. In this early stage, the social scientists and educators could come to know each other and learn to work as a team. It was hoped that any initial suspicions which the social scientists might have about either the intentions or the ability of the educators might be quelled by this early focus upon the social sciences themselves. Since the tradition at the University of Minnesota has been to hire social studies spectialists with strong backgrounds in the social sciences, it was hoped that their ability to enter into the initial give and take of discussions about the social science disciplines would promote the development of an integrated group which could then advance to the tasks in curriculum development which would arouse more controversy among staff members. Interestingly enough, when such controversy did arise, social scientists and educators aligned themselves on both sides of the controversies rather than on opposite sides.

Diagnosis of Existing Curricula and Review of Educational Literature and Research

One task in this stage of curriculum development is to diagnose the strengths and weaknesses of the existing curriculum. This process is somewhat different for a curriculum center than for curriculum developers within a school system. The school system can evaluate its existing curriculum in terms of its success in achieving specified goals with a particular group of students. A curriculum center must take a broader view of the curriculum. Obviously, staff members at such a center will also be evaluating the existing curriculum in terms of certain criteria. However, these criteria may not be the same ones at first that they develop more systematically at a later stage for the decisions which they must make about a new curricular program. If they were to wait for this more systematic identification of criteria before deciding that the curriculum needed change, no program for curriculum development would be initiated.

Obviously, the investigators proposing the curriculum project at the University of Minnesota, a project which was initiated by educators rather than by social scientists, had initial assumptions of varying degrees of explicitness about criteria by which a curriculum should be judged. They might modify these criteria later as they proceeded with more systematic exploration of some of the tasks in the first stage of curriculum development, but these original assumptions were the outgrowth of their past professional training and experiences. The original investigators attacked this task of diagnosis in the process of developing its proposal to the United States Office of Education. The investigators reviewed educational research as well as the many complaints in the educational literature and many arguments about needed changes as they prepared their proposal. Their assumptions about the need for change have been summarized in chapter one in this report. However, their original proposal also summarized some of the educational research which gave rise to some of their assumptions about current weaknesses, about what was needed, and about possibilities which needed investigating in terms of their feasibility.

The staff members did not complete this diagnostic task when it submitted its proposal to the United States Office of Education. Staff specialists in education continued to review research, summarize research findings for other staff members, review curriculum proposals made by others, and reexamine some of their original viewpoints in the light of work done on the other tasks involved in the first stage of curriculum development.

Staff members were able to draw upon a number of suggestions made by a series of committees which had been operating within the state of Minnesota. These committees, which had been appointed as sub-committees of the Social Studies Advisory Committee to the State Board of Education, had been working for several years assessing the strengths and weaknesses of the existing state curriculum, surveying research, and making suggestions for possible changes. Since the chairman of the overall advisory committee and since several other active participants on this and on some of the sub-committees were also members of the Curriculum Center's staff, there was considerable carryover from the earlier work. Certainly, not all of the suggestions by these earlier committees were adopted, but suggestions were given careful consideration by some of the staff members.

Consideration of Philosophical Questions Related to Curriculum Decisions

A second task facing a curriculum center in this early stage of work is to consider certain philosophical questions. What should be the role of the school in a democratic society? More particularly, what should be the role of a social studies program? Should it be designed to meet youth's present needs? Should it be designed to prepare pupils for future needs? Should it be attempting to pass on the present cultural heritage, and, if so, what part of this heritage? Or should it be attempting to do something of each of these, and if so, what should be the mix? More specific questions grow out of these broader ones. For example, should the social studies program focus upon citizenship education or only upon teaching a sound knowledge of the social sciences? Other philosophical questions must also be considered. What is the view of staff members about the good life and the good society? To what extent should a social studies curriculum be designed to try to promote the good life or good society as envisioned? What philosophic position does the staff take about epistemology? What implications does this position have for developing a social studies curriculum?

The Minnesota Curriculum Center worked on task two at different points. The chief investigators stated some of their assumptions about the role of a social studies program in their initial proposal to the Office of Education. These assumptions are presented in chapter one. However, these assumptions were not spelled out in detail nor were all of the value conflicts involved in them resolved prior to the beginning of the project. To have done so would have tied the hands of the larger staff which was brought together to engage in the curriculum development project. For example, the original investigators stated that a social studies curriculum should provide opportunities for pupils to study value conflicts in their society and to examine their own values. However, they did not attempt to reach any decision about whether or not the curriculum should attempt to develop any attitudinal goals related to values, even though the need to develop certain scholarly values was implicit in the proposal for the Center. The original investigators obviously had some assumptions about the role of the school in helping prepare for the future and in meeting some of their more immediate needs. To have spelled out these assumptions and their implications would have prejudiced later attempts to examine such questions more fully with an interdisciplinary staff, all of whose viewpoints and scholarly perspectives, particularly from such disciplines as sociology, anthropology, and political science, should be considered in coming to any final decisions about them. Therefore, much of the work on task two was carried on during the first year of the Center's work. To the extent that the original investigators agreed, however, that the sources of a social studies curriculum cannot be found in the social sciences alone but must grow out of a consideration of the needs of learners, social trends and problems, and an examination of the learning process, the work of the curriculum center was broader than it might otherwise have been.

The staff wrestled particularly hard with the problem of what the role of the curriculum should be in attempting to develop values. Staff members identified six questions which needed investigation before this broader question could be answered. First, to what extent are values involved in the social sciences themselves? Are social scientists affected by values in their work as social scientists? Are some values an inseparable part of any social science discipline because they are working postulates in the field? In other words, are there some values which need to be taught in a social science program because they are an inherent part of the work of the social scientists? Second, what role can the social sciences play, if any, in helping people examine their values or achieve the goals they value? Third, what can the social sciences tell us about the role of values in a society or about the importance of values to individuals? Fourth, what is the role of the school in society both in terms of transmitting values from the cultural heritage and in helping pupils themselves? Fifth, are there some values which must be taught if the school is to operate effectively as an organization? Sixth, how much impact can schools have upon the development of values? If the impact is small, it would be foolish to establish values as goals of the social studies program. Staff members attempted to answer these questions in Background Paper #11 which went through several stages of revision before it proved acceptable to the staff as a whole.

Some of the questions raised in task two were answered less explicitly than they might have been. At times, various perspectives of some members of the interdisciplinary staff toward what constitutes curriculum development and their desire to get on with the task of curriculum development without preparing more position papers, made it easier for the director of the project to raise the issues tangentially when it came time to make decisions about other questions. The position of the staff is implied or stated explicitly in some of the background papers dealing with these other matters. For example, the paper on the role of the values in the social studies program states a point of view about the role of the school in society as it pertains to passing on a cultural heritage and as it pertains to its responsibilities for meeting the needs of youth. Explicit statements are found within the body of the paper, and the staff's assumptions about these questions are also implicit in the statement of the attitudinal behaviors identified as goals for the social studies program. Moreover, an examination of the attitudinal goals reveals the assumptions (which were explicit in the minds of the authors and in the staff discussions about the paper but not stated explicitly in the paper) about what knowledge is, about democracy, and about the good life and good society. Statements within the body of the paper elucidate some of the positions more clearly. It is fairly evident, for example, that the staff members believe that the good life for individuals involves some sort of commitment to a value system. The staff's position on the importance of certain values is also implied in the background paper on the implications of learning theory for curriculum development, since the authors relate some of the learning principles to the kinds of learning which staff members felt important. Background papers on the different social science disciplines and on the social sciences as a whole indicate the staff's position on what constitutes knowledge and how man can gain knowledge when dealing with social data.

Not all of the points upon which staff members agreed were written up in position papers. At the time, it did not seem necessary to do so, as long as there seemed to be agreement to proceed. At that time the staff was concerned with progressing with the task at hand--building a curriculum, rather than making all of its positions crystal-clear so that others might understand better how it reached certain decisions. Notes were taken on discussions, and staff members also wrote notes to each other and to the director, some of which were then discussed in staff meetings. One note from our staff sociologist, for example, stated: "I am almost persuaded that we should simply go ahead and build a curriculum without further concern about values; we have discussed them enough to have become aware of the problem." Her note then proceeded to outline points on which she felt the staff had reached agreement and a position which she felt some of the staff took on a question related to the good life, although she did not define it in that way. Rather, she attempted to state how she, as a sociologist, viewed what happened to people without a commitment to values and the dangers and implications she saw arising out of this lack of commitment: "When people have no well-defined values, when they are *anomic*, they die. Sometimes they die literally; sometimes they become mentally ill. So strong is the need for values, that they will accept almost any kind, including communism, nihilism, nazism, and so on. This does seem to me, as to Bob [the staff's historian], to be such a dangerous trend in our society, that I would prefer to indoctrinate certain traditional values, even though we may not all be agreed on all of them. This is what we will be doing if we just go ahead with the curriculum because of the nature of the particular values most of us in this group share." This position was discussed in a staff meeting, and the staff's position was later explicated in the paper on values. The note is included here to indicate one way in which the staff operated, through informal notes and brief written statements and through discussion of such notes and statements in staff meetings. No formal position papers were prepared to clarify the staff's position for others on all questions which were considered prior to making curricular decisions about goals and a curricular framework. In this particular instance, the staff discussion was followed up by a more carefully written statement in the paper on values; however, in many instances this was not the case. This particular note is included here as an example, because it happens to be one of those saved for future reference.

Analysis of Society

Closely related to task two is a third task, that of examining one's society and the culture of one's society and also examining the broader society of nations. An identification of trends and problems helps provide the criteria by which one determines significance both of possible goals and of topics which might be used as vehicles to achieve these goals. A society undergoing rapid change, for example, with a trend toward an ever-increasing rapidity of change, requires different kinds of education for its citizens than one which is relatively static. Passing on the cultural heritage of existing knowledge, which may be outmoded quickly, may not be so important as developing skills and attitudes which enable people to cope with future change. A society in which anomie seems widespread, may need more attention to values in the school curriculum than one in which there is not extensive anomie. A society in which international affairs impinges upon the lives of individuals makes certain topics more significant for inclusion in the curriculum than they would be in a society with little contact with other parts of the world. Certain topics may be of great relevance to the lives of pupils in a society torn by dissension between races and marked by racism on the part of some and negative self-images on the part of minority group children. If education is to prepare pupils to live in a society, it must deal with that which is significant and likely to be of continuing significance in that society.

The Minnesota Curriculum Center attacked this task of considering social trends and problems at several different points in its work and in several ways. Again, it should be noted that the original investigators had identified in their proposal to the Office of Education some social trends which they thought made curriculum change necessary. As the staff considered the role of values in a social studies program, they came back constantly to the question of needs arising out of social trends and problems. Since such points were raised so frequently in staff discussions related to other curriculum tasks, and since so much had been written about current trends and problems by others, the staff did not prepare any additional background paper on this topic. Rather, the staff sociologist wrote an informal paper for consideration. This paper and ideas from other staff members became the basis for a list of trends and problems. This list was used in efforts by the staff to apply the criterion of significance to the selection of goals, topics to be studied, and learning experiences.

Examining Learning Theory, The Learner, and Research on the Development of Thinking Processes and Skills in the Social Studies

A fourth task during the first stage of curriculum development involves an analysis of learning theory, a study of research findings about interests, concerns and abilities of learners at different stages of development, a study of research findings about differences among learners, and an analysis of research findings about the teaching of thinking processes and specific skills within social studies programs. Research findings on each of these topics have important implications for decisions about what goals are important and feasible, about the selection and organization of content and learning experiences, and about general teaching strategies.

The staff examined several kinds of questions. For example, is a teaching strategy based upon one learning theory more effective in achieving some kinds of learning than others? If so, which theory and learning strategy related to it would be most helpful in achieving the goals which the staff felt most important? Is one curricular pattern based upon one learning theory more effective than another with all pupils or is one more appropriate for some students and less for others? To what extent do differences in cognitive styles among pupils make it wise to use different teaching strategies if individual differences are to be met and some pupils not discriminated against in the learning process? Is there common agreement upon any principles of learning? What research findings are available to evaluate the new theories about learning as related to developing a structure in a discipline or to evaluate inquiry teaching strategies? What evidence is there about the ability of children in the primary grades to develop concepts or to use certain thought processes? What does research evidence suggest about the teaching of other skills at different levels? What studies of interests or of developmental stages of children and youth might be helpful in identifying particular topics which would motivate study and be useful to the pupils in their efforts to work their way through certain developmental tasks?

Two education specialists on the staff, one in the field of elementary education and one in secondary education, analyzed some of these questions in a background paper on "The Implications of Learning Theory for Curriculum Development". They consulted specialists in educational psychology as they worked on this task. The first draft of this paper became the basis for a series of staff discussions, in which the staff sociologist, who was also interested in learning theory, took an active part. The paper was revised and became one of the background papers for use by the staff as they made some of their early curricular decisions, for use by staff writers preparing resource units, and later for use by teachers using the curriculum materials. In addition to this paper, staff members from the field of education examined a series of reports on research on children's interests and conceptual development at different levels before they submitted their proposal for a curriculum project. They summarized the findings of these and other studies in social studies education for use by the entire staff.

Analysis of the Social Sciences

Another task which the Center faced during the first stages of curriculum work was that of analyzing the social science disciplines as sources for the curriculum. One aspect of this task was to identify new developments in each of the disciplines in order that the social studies curriculum might be brought up-to-date. More far-reaching was the objective which the investigators had set in their original proposal. This objective involved an attempt to develop possible structures for each of the social sciences and to examine the question of whether or not an overall structure might be set up for the social sciences as a whole.

The staff defined a discipline as a field of study, an organized body of knowledge, and a method of inquiry combined. The field of study refers to the data studied and the types of questions asked by practitioners in the discipline. These questions define the data of the field and so its boundaries. A discipline also includes an organized body of knowledge. The structure of the field refers to the way in which facts and concepts are related. In those disciplines aimed at prediction, the structure includes the concepts, generalizations, and theories of the field. A discipline also includes a general method of inquiry, such as empiricism in the social sciences, a set of tools or techniques for carrying out the general method of inquiry, and a method of explanation. In the sense that the concepts of a field focus and direct inquiry, these concepts are tools of inquiry.

Since some people define the structure of a field as the analytical questions asked by practitioners of the discipline as they pursue their investigations, it may be wise to clarify this staff's position on the relationship of the use of such questions (which it considers part of the inquiry process) to concepts and generalizations of a field (which it considers structure). At first glance, the two approaches to structure appear very different. Upon closer examination, much of this difference disappears, unless those who hold the structure-concepts/generalization approach consider it a closed system. The analytical questions asked are related to certain key analytical concepts and arise out of generalizations and theories which have been developed around them. For example, one can say that decision-making is a key concept in political science and even provides a basis for one major framework or theory for analyzing the political system, even if it cannot be used for prediction. One could set up a series of analytical questions related to decision-making, including, to list only a few: How does the decision-maker's own experiences, perceptions, and values affect his decision? How does the structure of government or the institutional framework within which he makes decisions affect his decision? How is the decision-maker limited by available information, time, or resources? Each of these analytical questions is related to a generalization about factors affecting decision-making. Or, to use another example, one can say that culture is an analytical concept in anthropology. One could set up a series of analytical questions related to culture such as: How do people learn the culture of their society? What factors bring about changes in culture within a society? To what extent do different groups in the society share the same culture and to what extent have they developed sub-cultures? To what extent is the culture integrated so that a change in one aspect brings about changes in other aspects? Each of these analytical questions is related to one or more generalizations about culture. Indeed the most significant concepts in any field are those which are related to the largest number of different concepts and which are used in explanatory generalizations and theories. It is the generalizations which social scientists have about a concept which make the concept significant.

This Center has chosen to identify important concepts and generalizations from the various social sciences and has tried to provide for sequential development of them in the K-12 curriculum. This does not mean that staff members reject the idea of having pupils learn to ask analytical questions related to the concepts. Pupils can be taught to turn generalizations into questions to be asked as they study new data. Having learned that certain factors affect decision-making by the President, for example, they can ask whether or not these same factors or others influenced decision-making by legislators. They may discover that they do, or they may wish to limit or modify their old generalization. Although pupils can begin with an analytical question, this Center's staff somewhat prefers to have them state an hypothesis in the form of a generalization to be tested. However, both approaches can and perhaps should be used. The approach to use seems to this staff a question related to inquiry methods and teaching strategy, not to the meaning of structure. Analytical questions define the data of a field and so its boundaries. They are used in the process of inquiry. Structure, as defined by this Center, refers to the organization of knowledge and so of concepts, generalizations, and theories.

Each of the social scientists on the staff was asked to describe and analyze his discipline in staff meetings. Other staff members read widely in materials suggested by each social scientist, so that staff meetings could be used to identify differences and similarities among the fields and to raise questions which would force each social scientist to clarify his position. Other social scientists were brought in at times to present their analyses of their fields of study. Finally, each of the social scientists prepared a written paper on his discipline. Each of these papers, with the exception of those on economics and history, describes the field studied, the types of questions asked by practioners of the discipline, conflicting theories, a possible conceptual framework, and methods of inquiry in the field. The staff's historian took the point of view that history has no concepts of its own. Even when historians may have introduced certain concepts, the major analysis of such concepts have been carried on by those in other social science fields. Therefore, the paper on history analyzes history as a field and discusses historical criticism, the ways in which the historian can use behavoral science theories and concepts in analyzing historical data, the problems of explanation in history, and the question of periodization.

The original economist working with the project brought in a number of other economists to present their ideas to the staff. Finally, one of these prepared a paper which is really a reaction to the National Task Force report on Economic Education, rather than a complete analysis of the field of economics. It seemed unnecessary at that time to have him prepare a completely new document.

Early in staff meetings, it became apparent that different staff members were using terms such as concepts and generalizations differently. Therefore, a staff member prepared a paper on "Concepts, Generalizations, and Theories" upon which staff members finally agreed. This paper appears among the background papers as paper number 3. In addition to attempting to clarify terminology and indicate relationships among concepts, generalizations, and theories, this paper presents a brief statement on the usefulness of concepts, criteria for determining the significance of concepts, and criteria for assessing the difficulty of concepts. The paper also presents the staff's point of view about the place of concepts, generalizations, and theories in a social studies curriculum.

Each social scientist on the staff was asked to do more than describe his field of study and outline a possible structure for his discipline. Each was asked to identify those aspects of his discipline which he considered most important for the ordinary citizen to study. No attempt was made to develop formal papers in response to this task; some papers consisted of lists and some of brief expositions of the topics. Since these papers were for staff use rather than for use with those who would use the curriculum at a later date, the lists have not been included among the background papers for the project.

The social scientists were also asked to try to identify points of convergence between their fields. They prepared lists of both concepts used across fields and topics which were studied in common by various fields. These lists were used in the effort to identify concepts and topics which were of significance to several fields and so which deserved more extensive study in the curriculum than some others of significance only to one field.

After studying points of divergence and convergence among the disciplines, two staff members prepared papers on the social sciences as a whole. One attempts to clarify questions which should be asked because of the lack of a common use of terminology between fields and even among social scientists within one field. This paper proposes that social science terminology be examined in terms of processes, structures, and the number of social actors involved and suggests questions which should be asked about each of these. It includes a chart format which might be developed further to help identify the referents for frequently used words in the social sciences.

The other paper on the social science disciplines attempts to bring together a number of ideas which would help people understand the position taken by this staff on disciplines and the role of disciplines in a social studies program. This paper defines a discipline, identifies social science data, and discusses the social sciences as sciences (including their methods of inquiry). It also differentiates the different disciplines, notes relationships among them, and discusses the role of the social science disciplines in a social studies curriculum.

Stage Two: Defining Goals

A second major stage in curriculum development comes when staff members proceed to define the goals of a social studies program in some detail. The staff of the Minnesota Center chose to define goals in terms of: (a) important concepts and generalizations from the social sciences which would have transfer value in helping pupils understand the world about them, now and hopefully in the future, (b) behavioral goals related to skills, including thinking skills, and (c) attitudinal behavious related to values.

Obviously, the task of identifying and defining goals is related to and grows out of the tasks undertaken during the first stage of curriculum work. The decisions reached during that stage provided the criteria by which goals were selected. At times the work of identifying goals overlapped with the work done on tasks related to the first stage. For example, the director of the Center found that it was easier to reach concensus upon the place of values in the social studies curriculum, if the staff also focused upon the attempt to define which values or attitudinal behaviors should be objectives of the program. The attempt to identify inquiry skills as part of skills objectives obviously grew out of the earlier study of the different social science disciplines, as well as out of the staff's views of society, the needs of pupils growing out of that society, and the role of the school in society. However, the identification of key concepts and generalizations had begun during the earlier examination of the disciplines and the points of convergence and divergence among them. At this second stage of curriculum development, however, more attention was given to looking for concepts which seemed to be useful in more than one discipline and trying to identify some of those which seemed to have the most significance. At this stage, also, a more systematic effort was made to state the major generalizations to be taught in the curriculum.

Since the staff identified the anthropological concept of culture as the basic concept which could provide a thread to help tie the entire curriculum together, one staff member prepared a chart analyzing the concept in terms of levels of abstraction, difficulty of level of analysis, and current issues about culture. This chart was used for an extended staff discussion and, ideas from it were used in selecting and organizing content and identifying issues which might be raised about culture in the last years of the social studies program.

Stages Three and Four: The Selection and Organization of Content and Learning Experiences

The first two stages of curriculum work consumed nearly a year of intensive effort on the part of the staff. The next two stages involved the selection and organization of content and learning experiences so as to achieve the staff's goals and provide for continuity and sequence in the study of the concepts, generalizations, skills, and attitudinal behaviors to be developed.

Books on curriculum theory tend to divide the tasks of selecting content, organizing content, selecting learning experiences, and organizing learning experiences into four different steps. This Center found that there were two distinct stages in which the selection of content and its organization were really intertwined. The first of these stages focused upon developing an overall curricular framework; the second focused upon the selection and organization of more specific content within the units which had been identified, some modification of the earlier arrangement of unit topics within each course, and the selection and organization of learning experiences within each unit.

Both of these stages involved the task of identifying criteria or principles for selection of content topics to be studied and the learning experiences to be used in teaching them. Both required the identification of principles for arranging sequence. The first of the two stages also involved the development of grade level themes which would help pupils relate the topics studied within any one course.

Stage Three: Developing a Curricular Framework

Identifying a curricular pattern to achieve the staff's goals proved one of the most difficult tasks undertaken during the entire project. It is at this stage of curriculum development that books on curriculum theory and construction provide the least help. Probably because less is known about how to procede once the earlier steps in curriculum development have been accomplished, many curricular projects end by providing a rehash of old courses. Or they may rearrange some of the old courses without making basic changes within them or without any real attempt to develop a framework which might prove better adapted to achieving goals. Frequently, an examination of a new curriculum finds little relationship between the curriculum materials and the policy decisions made during the earlier steps of curriculum development.

In part the failure to develop new curricular frameworks may be attributed to the dilemma which faces any curriculum developers--a problem which the Minnesota Center had to face squarely after carrying out the earlier tasks. Should an attempt be made to develop the best curricular framework possible, within the capabilities of the staff and the time available, or should the staff attempt to work within the traditional framework, trying to bring about improvements through up-dating social science content, introducing new teaching strategies and materials, and providing better continuity and sequence for concepts and skills? The first approach offered a better opportunity for eliminating duplication, providing a more carefully developed sequence of learning, and introducing some topics and concepts far earlier than in the existing curriculum. The second approach had the advantage of involving less work by the Center and making the job of introducing the new curriculum easier, at least on a superficial level. It is undoubtedly less difficult to persuade a few teachers to try out alternatives to the courses which they already teach than to persuade an entire faculty to make major changes in the content of their courses. On the other hand, the Center's staff suspected that it might also be found that those who had been teaching a somewhat similar course in terms of general course content might accept a new curriculum in name without really changing the approach to either the content or teaching strategies, unless they were highly discontented with the course which they were already teaching. The Curriculum Center's staff finally opted for the first approach, in part because they felt that their original assumptions and objectives obligated them to do so, in part because at that time no other project funded by the U.S. Office of Education was concerned with a K-12 curriculum development program. If any project were to attempt to develop a model for the drastic revision of the curriculum from K-12, this project seemed to be the one to do it.

As the staff struggled with the job of developing a curricular framework, it became apparent to them that the task of selecting content could not be separated neatly from the task of organizing that content. A series of criteria could be set up for selecting content, including, among others: (a) the usefulness of the content in helping teach specific concepts, generalizations, skills, or attitudinal behaviors identified as goals of the program, and (b) the significance of the topics chosen. However, if these were the only two criteria for selecting topics, the staff might select topics which were not suitable for some of the earlier grade levels. The staff had to add other criteria for selection of topics which also had a bearing on the organization of content. These are explained more fully in chapter four but included suitability to the maturity level of the pupils at each grade level, and, after themes had been developed for each grade level, coherence with the identified theme at a grade level where the topic seemed appropriate to maturity level. For example, many members of the staff believed that the topic of juvenile delinquency was significant, of interest to pupils at the secondary level, and a useful topic for teaching many of the identified goals. However, the staff's sociologist believed that the topic could not and should not be studied in a realistic way with pupils at the seventh grade level in the course in which it would be most appropriate in terms of themes finally identified for the different grade levels. Such a topic did not fit into the themes at later grade levels when it might have been more appropriate, though aspects of the topic are suggested as a possible avenue for exploration in the unit on The Good Life. In other words, the problems of organization of content in terms of grade placement also had an effect in some cases on the actual content which was finally selected from among the many topics which the staff considered.

Clearly, the selection of major content topics does not define the content to be taught thoroughly enough. For example, curriculum developers may decide to teach a unit on the local community at a particular level. What will be the focus of this study? What sub-topics within this broader topic should be selected for study at a specific grade level? To decide to teach a unit on Canada in a fifth grade class is not enough. What topics about Canada will be chosen for the focus of study and as the vehicle to teach the concepts, generalizations, and attitudinal behaviors identified as goals for the curriculum?

Curriculum experts have struggled for many years with the attempt to develop principles for organizing content. For example, some propose that the organization should move from the simple to the complex. Others propose an organization which moves from the near to the far, or an expanding environment theme. Some argue in favor of the logical exposition of ideas found in a particular subject matter field. This order would depend upon the importance of one idea needed to understand the next idea. Some favor an organization which moves from the whole to the part and perhaps back to the whole again, while others favor moving from various parts to the whole. Some argue for a chronological organization within at least some courses. Still others favor a comparative approach to the study of any topic or of different places. Any one of these priniples is sometimes combined with others. Moreover they may be combined with the proposal for a cyclical return to content topics at later levels when the content can be taught more analytically from a different approach, or for the sake of repetition and so greater retention of knowledge in the field.

Each of these principles has strengths and weaknesses, and some are more appropriate as the basis for ordering content over an entire K-12 curriculum or even over a three or four year sequence. Each of these principles is analyzed in chapter three in relationship to the decisions made by the Center's staff in developing a curriculum design.

The Center's staff had to deal with these and other issues as it tried to identify principles to follow in selecting and organizing content for the curriculum framework. In the interests of elegance of design, staff members would have liked to find or suggest one or at most just a few principles to be used in developing the curricular framework. It considered various possibilities. Could it identify any basic principle which it might follow throughout the entire curriculum for grades K-12 or any principle which should be given priority among other principles? Could it, for example, opt for a cross cultural organization throughout the entire curriculum? Could it achieve all of its goals by building all courses around individual disciplines? Could it do so by developing only interdisciplinary courses? Could the staff achieve its goals by focusing entirely on the study of societal problems and public controversy? Could it achieve all of its goals by rejecting all problem-centered organizational approaches in favor of units in which content is organized logically according to whatever subject matter discipline is being studied? Should the Center select only those topics that would lend themselves best to developing critical thinking processes, either to the exclusion of other goals or a decided deemphasis of other goals? If an elegance of design based upon one or only a few principles did not seem feasible, what kind of model might be developed to take advantage of different principles where they seemed most applicable and most likely to contribute to the staff's goals? Could the staff rely upon one principle within one course, another in another course? Could it emphasize one principle at the primary level, another at the intermediate level, and still others at the junior high and senior high levels? Or would the staff need to develop a more complicated model, relying upon different principles of organization even within individual courses at times? The decisions which the staff reached on these questions are presented in chapter three as they relate to the curriculum design. The basic decision that the total educational program in social studies could not be built upon one organizational principle made the task of the Center's staff more difficult and undoubtedly lengthened the time spent developing a curricular framework.

The staff's problems were complicated further by other factors. Staff members wished to develop a curricular framework which would facilitate changes to keep pace with current developments in the world but which would provide a basic framework not likely to be outmoded quickly. The staff faced a problem of how to develop a curricular framework from grades

K-12 to provide continuity and sequence but also one which could be introduced at all levels without waiting for pupils to come through the earlier years and which would make possible adjustments for pupils who transfer into the program from schools with other curricula. Some compromises on sequence might be necessary, particularly at certain grade levels, until pupils had come through the earlier years. If so, suggestions would be needed for making modifications after the curriculum had been used for a period of years.

Still another factor which had to be considered in developing a sequence was a legal one. A staff assistant investigated the constitutional, legislative, and state department requirements related to social studies in all of the states. Obviously, no curriculum could meet the requirements in all states. However, there was fairly extensive agreement that there must be an American history course at least by the end of grade eight and another in the senior high school. These requirements ruled out the feasibility of placing American history in grade nine, a possibility which the staff had considered but would have rejected on other grounds. Still, the legal requirements did have to be kept in mind if the Center hoped that the framework might prove useful in a number of states.

Questions such as these make the task of developing a K-12 curricular framework almost overwhelming. Staff members had to consider many questions, issues, and principles as they developed one possible design after another. To facilitate work, large charts were prepared to make it easier for staff members to keep in mind those concepts which seemed to be key concepts in the different fields and also of value in analyzing: (1) the ideas which the social scientists felt most important to the ordinary citizen, and (2) those important for analyzing certain social trends and problems and the more personal problems faced by pupils.

Another chart dealt with possible content topics. It included columns to indicate whether or not this was a topic considered important in each of the different social science fields and whether it was significant in terms of trends and problems in the world. Another column permitted staff members to assess the probable interest level of such a topic for pupils at different levels; these judgements were made in terms of earlier investigations of research findings as well as the classroom experiences of staff members. Still another column provided a place to assess whether or not this topic lent itself readily to teaching certain skills and attitudes.

As each curricular design was developed, it was checked against these charts. Moreover, another chart was made for each. This chart listed key concepts across the top of the sheet and grade levels along the left-hand side. The design was then examined carefully to analyze whether or not the major unit topics suggested at each grade level lent themselves readily to teaching each of the concepts. By comparing these charts, staff members could see rather quickly whether or not a particular design neglected any important concepts and provided continuity from one level to another for each of the concepts. A chart with many empty squares obviously provided less continuity than one with most squares checked.

In spite of all of these efforts to be systematic in their approach to stage two, it is the conclusion of the Center's staff members that the stage of moving from the decisions reached in the first two stages of curriculum work to a curricular framework is a creative act and involves an intuitive leap. The staff developed a number of curricular outlines. It quickly discarded some and revised others. Finally, it adopted a tentative framework which seemed to provide the best fit with all of the assumptions, the goals, and the criteria which the staff had identified. More time might have led the staff to develop a different framework. Staff members do not believe that its framework is the only possible one to achieve its stated goals -- or necessarily the best one. Eventually, however, they had to settle upon one which offered promise of achieving these goals, certainly more than working within the traditional framework. The framework seemed to offer enough promise to warrant working out details of learning experiences and developing the teacher and pupil materials needed to try it out in the classroom.

The curricular framework was considered tentative, subject to change as staff members worked with it either prior to or after tryout. Some changes have been made. A few unit topics have been dropped and several have been substituted. Shifts were made in the order of unit topics in some courses, even before the materials were used in the public schools. Further changes were made in the light of field tests, particularly in the internal arrangement of units. However, the basic overall outline of course themes has not changed, and a comparison of the original and present frameworks would show few real divergences.

Stage Four: Developing Materials for Teachers and Pupils

After setting up the tentative curricular framework, the

As each curricular design was developed, it was checked against these charts. Moreover, another chart was made for each. This chart listed key concepts across the top of the sheet and grade levels along the left-hand side. The design was then examined carefully to analyze whether or not the major unit topics suggested at each grade level lent themselves readily to teaching each of the concepts. By comparing these charts, staff members could see rather quickly whether or not a particular design neglected any important concepts and provided continuity from one level to another for each of the concepts. A chart with many empty squares obviously provided less continuity than one with most squares checked.

In spite of all of these efforts to be systematic in their approach to stage two, it is the conclusion of the Center's staff members that the stage of moving from the decisions reached in the first two stages of curriculum work to a curricular framework is a creative act and involves an intuitive leap. The staff developed a number of curricular outlines. It quickly discarded some and revised others. Finally, it adopted a tentative framework which seemed to provide the best fit with all of the assumptions, the goals, and the criteria which the staff had identified. More time might have led the staff to develop a different framework. Staff members do not believe that its framework is the only possible one to achieve its stated goals -- or necessarily the best one. Eventually, however, they had to settle upon one which offered promise of achieving these goals, certainly more than working within the traditional framework. The framework seemed to offer enough promise to warrant working out details of learning experiences and developing the teacher and pupil materials needed to try it out in the classroom.

The curricular framework was considered tentative, subject to change as staff members worked with it either prior to or after tryout. Some changes have been made. A few unit topics have been dropped and several have been substituted. Shifts were made in the order of unit topics in some courses, even before the materials were used in the public schools. Further changes were made in the light of field tests, particularly in the internal arrangement of units. However, the basic overall outline of course themes has not changed, and a comparison of the original and present frameworks would show few real divergences.

Stage Four: Developing Materials for Teachers and Pupils

After setting up the tentative curricular framework, the staff began work on stage four, identifying more specifically the content to be used in each unit and selecting and organizing the learning experiences and materials of instruction. Learning principles became even more important as a criterion for selection and organization at this stage than in stage three.

To facilitate efforts to provide sequential development of concepts and generalizations, use was made of needle-sort punch cards. Each major generalization was typed on the front of a card, with subordinate, supporting generalizations typed on the back. The concepts related by these generalizations were typed across the top of the front side of each card. Holes for these concepts were punched so that all cards related to a concept could be located quickly by needle-sorting. At the beginning of stage four, penciled notations were made on these cards as to where each generalization and sub-generalization might be taught. These cards, or typed sheets made from them, were prepared for different grade levels and were used by those preparing resource guides and pupil materials. As the work progressed, some changes were made in the penciled notations and some generalizations were added to the original list. The Center's director found that being able to sort out generalizations on these cards greatly facilitated attempts to provide continuity and sequence for concepts and generalizations. In some cases, however, the cards were not so helpful in the development of certain units, since time pressures on staff were such that some of the preparatory lists could not be developed quickly enough for each staff writer beginning work. In such cases, the director was able to use the cards in revising initial materials to build in more attention to continuity and sequence than was done in the initial writing stage. Although these cards cannot be included in this report, the generalizations are presented in appendix 6 in a chart which shows at which level each is taught.

Similar use of needle-sort punch cards was made for facilitating the development of continuity and sequence for skills and attitudinal behaviors. It was found that they were useful but less crucial than were the cards on generalizations; the smaller number of skills and attitudinal behaviors meant that they could be placed more easily upon typed sheets for quick reference.

To take advantage of the fact that the staff included social studies specialists for different educational levels and representatives of each social science, work was begun on developing the details of some courses at the primary, junior high, and senior high levels at the same time, rather than focusing attention upon the primary grades first. By working in this fashion, the competencies of the different staff members could all be used at one time, and the overall task completed more quickly than would otherwise have been possible.

Individual staff members were assigned to coordinate the development work at each grade level and to write or supervise the writing of units at those levels. Since other staff writers would be brought in during the following summer to help with the work, sample units and background papers on unit topics were prepared prior to the summer writing program.

The Office of Education provided a special grant to enable the Center to bring in a number of staff members from small colleges and universities in the midwest to help with stage four. The Center's own staff social scientists, other University consultants, and visiting social scientists from these other colleges prepared background papers and suggested bibliographies on unit topics for use by those writing the resource units. In some cases these background papers are of continued use to teachers using the units and have been included with the final units.

Education specialists from the Center's staff and from among the visiting staff members wrote preliminary drafts of resource units. These staff writers were joined by a number of outstanding classroom teachers who helped prepare materials during the summer months. Each of these writers recognized that some of the units would be scrapped and that all would be modified extensively as the work of the Center progressed. Staff members continued to prepare resource units and some pupil materials during the following year. By the beginning of the third summer of the project, tryout materials had been completed (and some already revised in light of tryout in the University Laboratory School) for grades K-3, 7, 8, and 10. Many individual units had been completed for other courses in the curriculum.

Stages Five and Six: Evaluation and Implementation

Although the last two stages of curriculum development work can be separated in some ways, they also overlap in time. Dividing them in this report should not be thought to imply that evaluation of materials can be carried on without some attention given to means of implementing the program in the pilot schools, even though the main task of implementation must fall in a later phase after the major work of development has been completed. Moreover, the way in which a Center approaches its earlier task of field testing will have effects upon later implementation efforts. Lack of effective work with teachers in the initial tryout stage could lead to the development of attitudes detrimental to later implementation.

Widespread efforts at dissemination and implementation had to be curtailed sharply because of the enormity of the task facing the staff and the paucity of both funds and staff time to answer letters, let alone carry on extensive correspondence with schools interested in the program, to prepare extensive progress reports, or to fill many requests for speeches or consulting services. However, to disseminate widely prior to improving materials as the result of tryout, would not necessarily make it easier to implement the curriculum at a later stage and might even handicap later efforts.

The separation of evaluation and implementation in this report may obscure the fact that evaluation is a continuing process and must continue during the stage at which staff members devote increased efforts to implementation. Indeed, some of the research interests of the staff and graduate students who have worked on the staff have become concentrated on the problems related to implementing new curricula in schools. Nevertheless, most of the task of implementation must follow the earlier attempts at evaluation which are aimed primarily at gaining information needed by staff members to revise and improve materials, or, if necessary, scrap materials and prepare new ones.

Stage Five: Evaluating Curriculum Materials

Any curriculum project should carry on some evaluation of a new curriculum. It must fieldtest the program, using feed back from teachers and students to revise the materials to make them more effective in achieving stated goals. Early evaluation efforts should become an integral part of the development process, with research funds and efforts focused most sharply upon those parts of the curriculum about which the developers need the most information because they represent the sharpest divergence from practice or are based upon major assumptions and hypotheses which need testing. Field testing to begin with may be on a fairly narrow scale, but field testing in the long run should be carried out under varied conditions and with varying degrees of consultation with the Center's staff to find out more about the kinds of help needed in implementing the curriculum and how well it seems to work with different kinds of pupils.

Eventually, more formal types of evaluation should be carried out, although much of this evaluation may be carried on better by those not involved in the initial development of the curriculum. Moreover, controlled research should be used to compare the success of differing curricular programs designed to achieve similar goals. However, to engage in widespread controlled research involving a number of new curricular projects prior to the revision of materials in the light of early tryout would be a waste of funds.

The Minnesota Curriculum Center did not envision any final evaluation of its K-12 curriculum within the initial period of its grant. Some field testing of varied types has been carried on, but most of the more carefully controlled experimentation could not be done within the initial five years. Indeed, evaluation of a K-12 program is by its nature a long-term task, even though specific parts of the program may be evaluated more carefully over the short run.

Tryout of the Minnesota curriculum materials in public schools has been handled in several ways. The Center circulated school systems in the local area, described its program, and asked for applications from those interested in becoming pilot schools. Staff members studied these applications and finally selected two school systems which offered a good cross section of pupils in terms of socio-economic status and which were large enough to provide enough staff members for the original tryout plus possible control classes at a later date. Two teachers were chosen at each of the grade levels to serve as project associates and work with the materials. To the extent that the Center's funds permitted, teachers were selected at different grade levels in other schools within a forty-mile radius of the Center. These teachers were chosen from among volunteers whose schools gave them permission to use the new materials for at least a two-year period and which agreed to pay for the cost of the pupil materials that would be needed. This was necessary since the grant for a K-12 curriculum project could not be stretched far enough to provide these materials for the schools, as has been done by some projects working with similar sized grants but on only a few courses.

All of the teachers selected as project associates attended a five week summer workshop program. Those teaching the K-3, 7-8, and 10th grade courses attended the first summer program in 1965 and began trying out the courses during the school year of 1965-1966. The teachers at the remaining levels attended a workshop during the summer of 1966 and tried out the materials for the first time during 1966-1967. Social scientists and education specialists worked with teachers in the workshops to help prepare them to use the new materials. Teachers were also encouraged to make suggestions for modifications and additions. Some of their ideas were incorporated in the materials to be tried out the coming year.

During the first year of tryout of each course, a staff member was assigned to visit the classes of each teacher at intervals throughout the year. These observations served two purposes. First, the staff member could observe pupil reactions to the materials and could compare his observations with those being reported by the teacher in his weekly reports. Second, the staff member could observe the teacher's behavior to find out whether or not he was following suggested teaching strategies and to identify problems for which the staff member might provide additional help. All of the teachers at a specific grade level met at least three times during the year for full day sessions. Some groups met more frequently. Their school systems paid substitutes for them on these days. These sessions provided opportunities for the teachers to exchange ideas about the materials and to discuss additional materials and procedures they had tried which were not suggested in the resource units. Staff members were able to get many suggestions from these meetings for changes in learning activities, the organization of some units, and in pupil materials. Frequently it was found that some activities worked well for some teachers but not for others. Staff members needed to find out why this was so. Was it due in part, perhaps, to the failure of a teacher to follow the suggested teaching strategy or because the teacher needed more help on a specific teaching technique? Or did the activity need to be rewritten to clarify it and make it easier for more teachers to use, even if other teachers thought that it worked well? Or should a procedure just be dropped or the flow of procedures be changed?

These all-day sessions plus the observations made by the staff member helped each staff member identify the reasons why some teachers had difficulties. He could then provide further suggestions for these teachers, both through individual conferences and through the general sessions in which other teachers discussed how they had handled particular procedures and general teaching strategies. The staff member could also identify suggestions which might be needed in an overall teacher's guide for the course. These all-day sessions were used at times for general in-service training to reinforce the summer workshop training on inquiry strategies and on more specific teaching techniques. For example, some staff members found that many teachers needed additional help on discussion techniques; usually, these teachers identified this need themselves. Parts of some of these sessions were aimed at helping them handle such techniques. The sessions also served to bolster teacher morale and provide them with the support frequently needed by teachers who are experimenting with new materials.

Teachers filled out written evaluation forms each week and sent them to the particular staff member assigned to work with the course. Each staff member saved these forms so that suggestions might be used in revising materials. He also used the forms to identify teachers who needed visiting early or more frequently than others because of problems which they raised as well as those who should be visited as frequently as possible because of the thoughtful and excellent suggestions they provided. In addition, the forms enabled him to identify certain questions which needed to be discussed by all of the teachers using the course.

Staff members obtained many valuable suggestions for additional or substitute procedures and materials and for exercises which might be used. Some of the most creative ideas in the Center's materials came from these teaching associates as they taught the courses. Moreover, the exchange at all-day sessions frequently stimulated new ideas which no one had yet tried but which might be tried by some to find out if they should be incorporated in the materials.

Both pupil materials and resource units have been revised in the light of the first year of tryout. Some units have been revised a second time as the result of experiences during the second year of use and in the light of the more careful evaluation conducted by staff members or graduate students. For example, the evaluation study reported in appendix 2 found that the concept of culture change did not seem to be salient as a result of children's study of the materials, even though it had been identified as an important concept to be taught in a number of the units.

The person conducting the research suggested several hypotheses about possible reasons for this finding. One obvious hypothesis was that the materials did not do an effective job of emphasizing this concept. Although time has not permitted thorough revision of all of the units since this research was carried out, some of the units have been revised in an attempt to make culture change more obvious to children.

Although the Center must now make its final report to the Office of Education, the University of Minnesota is providing some funds to keep the Center in operation. The hope is that course materials can be revised further as research evidence, more extensive tryouts, the appearance of new materials, or changing conditions in the nation and world make such changes seem wise.

The final stage of preparing overall guides for each course to accompany the resource units was postponed until after the tryout of materials and revision of resource units and pupil materials. Such postponement may appear strange. However, it was the hope that such guides could be made more useful after staff members had had an opportunity to note the kinds of questions which teachers raised about the curriculum materials and the kinds of help which most of them needed in understanding the program. The kinds of oral presentations made to teachers in the summer workshop and during personal conferences and all-day sessions of teachers were sufficient when there could be such close cooperation between the staff and the teachers involved in using the materials. More explicit statements in writing would be needed by teachers who would not be in such close contact with staff members and even by new staff members who were not involved in the original development and revision of materials.

One of the needs identified early by the staff as the materials were tried out, was the need to help teachers understand the continuity and sequence of concepts, generalizations, skills, and attitudinal behaviors in the curriculum, particularly as this sequence affected the courses which they taught. No matter how carefully such a sequence has been developed, its full potential will not be achieved unless teachers are aware of what has been done earlier and encourage pupils to apply previously-learned concepts and generalizations to new data and to integrate past learning with new ideas. Moreover, teachers need to build upon skills learned earlier, rather than approaching their development as though pupils had not encountered them in other courses. Since teachers will not always be teaching classes which will have studied earlier courses, they need suggestions on how to modify a course built upon the learnings in earlier courses. At first the Center's staff attempted to help teachers understand some of the sequence and possible adaptations by telling them things orally. However, it soon became obvious, that teachers needed a guide to which they could refer fairly frequently. The importance of such a guide became most apparent during the second year of field testing when teachers were faced for the first time with children who had had earlier project courses. However, the need also was identified during the first year when it became apparent that teachers needed a quick guide to the sequence within their own courses, since until they had taught all of the courses, just reading through resource units was not enough.

Four approaches have been used in revising old materials and preparing new written materials to help teachers make good use of the sequence in the curriculum. First, statements have been written into resource units to call the attention of teachers to topics, ideas, and skills developed in earlier courses or even units within the same grade level. Teachers are referred to specific units and even teaching procedures within units in earlier courses, to enable them to find out more easily what has gone before and how units in their course might be adjusted if pupils have not studied the earlier courses.

To build such suggestions into the units, one staff member had to examine and analyze all of the units and make some final revisions on each to include such suggestions where they seemed appropriate. This has been the task of the center's director whose responsibility it was to obtain the most comprehensive view of the materials prepared at all levels.

Second, the teacher's guide for each course contains a section which describes the place of that particular course in the overall curricular framework. This section calls attention to specific kinds of content taught in earlier courses which are related in some way to the content of the course the teacher is using. Moreover, it identifies concepts taught earlier which appear again in this course. The section also helps teachers understand why some content is postponed until later years rather than being included in the course he is teaching.

Third, each teacher's guide includes charts showing the sequential development of concepts, generalizations, skills, and attitudinal behaviors in the different units within the course. This chart enables the teacher to understand better the way in which continuty and sequence have been built into his course before he begins teaching it. Moreover, these charts are keyed to show the teacher which of these concepts, generalizations, skills, and attitudinal behaviors have been introduced in earlier courses.

Fourth, background paper # 1, to be prepared from sections of this final report, will include the overall charts which show at which grade level each generalization, skill, concept and attitudinal behavior is taught.

The Center recommends that a school keep in some central place a complete set of the curriculum materials for at least some grade levels so that teachers can consult earlier course materials.

Stage Six: Curriculum Implementation

The final task of any curriculum development project is that of implementing the curriculum in the schools and inducing change both in the overall curricular pattern in these schools and in the teaching strategies used in teaching such a curriculum. As indicated earlier, the lack of staff time and funds made it impossible for the Minnesota Center to undertake any widespread implementation while it was still engaged in the development process. As the project entered the evaluation stage of its work, however, staff members became more deeply intrigued with the problems of inducing curriculum change, particularly the problem of implementing a curriculum developed by a curriculum center not attached to a public school system. Furthermore, many pressures were exerted on the staff by school systems to provide opportunities for these schools to use the Center's materials and to provide in-service training for teachers so that they could use them effectively.

Even though the Center's staff had not originally planned any implementation beyond that involved in the original evaluation process until after the development process had been completed, staff members succumbed to pressures and to the intriguing problem of investigating the feasibility of different kinds of implementation. The staff members believed that they owed a responsibility to those school systems which had cooperated with them on the early try-out of materials if these systems wished to expand their use of the materials. Moreover, other local schools which had watched earlier try-out attempts now wished to become involved in the program. How to help these schools use the curriculum materials created a real problem. The Center had no funds to use for such a program. Moreover, staff members could not spare the time to work as consultants on an implementation project while they were still involved in the developmental phase of work.

The social studies consultant in one of the pilot school systems suggested a technique which the staff agreed to try. This consultant had been using some of his teachers trained in the summer workshops to work with other teachers in their schools on trying out some of the Center's units. Curriculum implementation cannot depend in the long run upon having all teachers attend a summer workshop or take part in a fellowship program at some college or university. Would it be possible to use teachers who had already attended such a workshop and who had taught a new course successfully to help a number of other teachers learn to use the materials? If such a program could be successful, a curriculum center could obtain additional pay-off from the money expended on an initial workshop program. The social studies consultant who suggested this idea to the Center also suggested a means of carrying out the program. This consultant and the director of the Curriculum center jointly approached the Educational Research and Development Council in the metropolitan area. Would the Council be willing to cooperate on an in-service training program? The Council agreed to do so and to sponsor an all-day workshop for administrators in the local region. Staff members from the Curriculum Center and the social studies consultant who originated the idea spoke at the workshop about the need for curriculum change and described the proposed in-service training program. In the afternoon, administrators attended a series of sessions at which classroom teachers who had been using the Center's materials explained the courses and approaches they were using.

The in-service training program was designed to help teachers find out more about the curriculum program, so that they might teach the new courses successfully. However, it was also thought of as a means of providing teachers with more information about some of the current trends and issues in social studies curriculum and help in handling inquiry strategies of teaching, regardless of what curriculum their school might adopt in the future. The program was set up in two parts. Four three-hour Saturday sessions were held during the spring prior to the year when the teachers would be using the materials. One hour of each session was devoted to a general meeting for a lecture on certain common topics and an attempt to give teachers some overall picture of the curriculum project and its rationale. The rest of each session was spent in group meetings. All of the teachers at a specific grade level met with a teacher who had used the materials successfully in his classes. These group leaders helped participants study the curriculum design and the chief features of the course as a whole and also prepared teachers to handle the first unit of the year. Many of the group leaders taught some lessons through an inquiry approach to help teachers understand this approach better. Teachers were given reading lists and urged to build their social science background over the summer months.

The second part of the program commenced in the fall as teachers began teaching the courses. Each grade-level group of teachers met for three hours every other week until the following May. They exchanged ideas about what they were doing and any problems they were having. The group instructor made suggestions, showed them new materials, gave them additional background on some of the social science content in the course, demonstrated some of the teaching techniques and made suggestions about others. They also helped the teachers prepare to teach the next unit in the course.

Some overall direction was given to the program through the activities of both the director of the Curriculum Center and the social studies consultant in one of the pilot schools using the program. The director lectured to the initial large-group sessions in the spring and met briefly from time to time with each of the groups which met on Saturday mornings. She also gave some early suggestions individually and in several staff meetings to those teachers who were handling the grade-level meetings. The social studies consultant in whose district the Saturday meetings were held was at each of the Saturday sessions and visited different group meetings during each session. Some of the groups, however, did not meet on Saturdays and so had less contact with either this consultant or the Center's director.

The program was financed by the school systems involved. Each system paid $100 per teacher enrolled in the program. This money was used to pay the teachers working with the groups, to provide sets of teaching materials to each teacher, and to pay for some of the costs of handling and delivering materials to those using them.

The Center and the Educational Research and Development Council suggested that school systems might provide some kind of token reward to teachers for spending so much of their own time on this in-service program, since University regulations did not permit graduate credit for courses conducted in this fashion. Some of the school systems provided teachers with board credits to raise them on the salary schedule. Others paid them a small sum for each meeting or for attending the overall program. Some teachers received no incentive of any kind, and a few even paid the $100 enrollment fee themselves.

Early in the spring, the Center and the Educational Research Council conducted a questionnaire study to find out how participants in the program viewed its success, and to gain information needed to make a decision about whether or not another program of this type should be conducted and, if so, how it might be modified to make it more useful to the teachers involved. Three questionnaires were developed through the cooperative efforts of the Curriculum Center and a committee of the Educational Research Council, whose chairman was the consultant who had been working with the Saturday sessions. One questionnaire was answered by the teachers enrolled in the in-service training program. It attempted to find out not only how helpful teachers viewed the training program but what effect it had had on their views about teaching strategies and techniques. A second questionnaire was answered by administrators in the schools from which the participants in the program came. The third questionnaire was answered by each of the teachers who taught one of the groups. Copies of these questionnaires are included in Appendix 3. An analysis of the results are found in chapter four.

Requests from local schools for another in-service training program and the overall favorable findings on the first program have led the Curriculum Center to undertake a second program. This program, which was begun during the spring of 1968, has been modified slightly in terms of some of the questionnaire findings and the desire to find out whether less time and fewer meetings might still provide an effective implementation program. An evaluation of this program will be conducted next year.

The original tryout and evaluation of the Center's curriculum materials was carried out in schools in the local area so that staff members might visit classes and hold joint sessions of all teachers working with materials at one level. Requests from schools in other areas for participation in this phase of the Curriculum Center's work could not be met because of the lack of both funds and staff time. However, the staff members were intrigued by the question of how a drastically different curriculum could be implemented in places which could have little contact with the Center. Consequently, the Center agreed to have two school districts at opposite ends of the country try out some of the materials on a pilot basis. Each was to use a different approach to implementation. This experience would give staff members the opportunity to make an informal assessment of techniques, as the basis for more careful research later on the means of implementating curriculum programs developed by a curriculum center rather than by the school system involved. The experience in the two school systems would also give staff members some idea of how easy it would be for teachers to use the program if they did not have an intensive summer workshop program.

The Bellevue, Washington schools planned a program which involved a summer workshop for several teachers at each primary grade level and at the seventh and eighth grade levels. An elementary education specialist on the Center's staff worked with these teachers for one week, after the teachers had had an opportunity to study the materials on their own. A junior high specialist from the Center's staff worked with the junior high teachers for the same length of time. Each of the teachers in the workshop taught the course the next year. Against the advice of the Center's staff members, each of these teachers also helped other teachers in his building teach the new courses during the same year in which he was teaching it for the first time. The two staff members from the Curriculum Center spent two days with the teachers in late November, trying to help them with problems which they had encountered and providing suggestions for the rest of the year.

Assessment of the success of this implementation has been very informal. The Center has depended upon the observations of its own staff members made in November, upon the informal evaluation made by the social studies consultant in Bellvue, and upon the school district's reactions to continuing and expanding the program.

A second approach to curriculum implementation was worked out in Chelmsford, Massachusetts. In this case, the new social studies consultant had held several conversations over a period of several years with the Center's director. He had tried out a unit in a summer program in the school system in which he had worked the previous year. His implementation plan called for working with a group of primary grade teachers, each of whom would teach only one unit during the first year. They would not begin until the middle of the year in order to provide time for the consultant to develop packets of materials suggested for use in the units and to prepare the teachers to handle the materials. Once the try-out began, the consultant visited classes frequently and taught some lessons in different classes.

The Curriculum Center has had no direct contact with the teachers, although one of its first staff members, who is now teaching in the east, spent several hours with the teachers before they began their work. The only other contact between the Center and the Chelmsford Schools has been in the form of brief conferences, long distance phone conversations, and letters between the social studies consultant and the director of the Center. Chelmsford used a questionnaire study to find out how teachers assessed the experience. This questionnaire was adapted from the Curriculum Analysis System developed by the Social Science Education Consortium at Boulder, Colorado. The consultant also taped conversations which he held with children to find out how they reacted to the units. Some of his findings are reported in the next chapter, and a copy of his questionnaire is found in appendix 4.

The Chelmsford approach to using the Center's materials differs in another way from the one used in Bellvue. As indicated earlier, the Center's staff views its curriculum as one possible curriculum model--a model which schools may wish to use in large part but to modify to fit local needs. The Center's guides urge teachers to build their own units around some of the unit models at certain grade levels in order to use local materials. For example, the guide suggests that first grade teachers substitute a unit on a local Indian group for the unit on the Chippewa family which was developed for Minnesota children. Chelmsford teachers are working with the social studies consultant to develop such a unit. The Center has also encouraged the Chelmsford consultant to work on several more major modifications of the curricular framework which may make it easier to implement change in his particular system with his particular staff. This the teachers are doing in a summer writing program.

This approach may prove to have several advantages. It might make possible the development of curriculum materials more relevant to the particular school situation in which they are to be used, while still providing the school with a basic framework within which to work. The extensive and expensive efforts needed to handle the many tasks of curriculum development carried on by a curriculum center would lighten the load on the local school system. Much has been written, moreover, about the importance of involving teachers in curriculum development within a school system in order to facilitate change. Experience may show that involvement of teachers in the task of modifying a curriculum provided by a curriculum development center may make it easier to implement the most important features of that curriculum.

Obviously, much more needs to be done by the Minnesota Center in the dissemination of information about its curriculum, in implementing the curriculum in schools, and more important, in evaluating different approaches to curriculum implementation. Some next steps are suggested in chapter five.

CHAPTER THREE: ANALYSIS OF THE CURRICULUM

This chapter focuses upon the K-12 curriculum developed by the Minnesota Curriculum Center. Part I presents the curriculum design. This design is spelled out in some detail rather than in the briefer curricular framework which the Center has circulated in the past. The descriptions of courses are taken from the separate guides for each of the grade levels. The design is presented first so that readers can refer back to it as they follow the analysis of the design.

Part II presents the major curricular decisions reached by the staff, other than those already stated in chapter one, and indicates how these decisions affected the curricular design and the development of materials. This part also analyzes the design to identify more clearly the salient features of the curriculum.

PART I -- THE CURRICULUM DESIGN

KINDERGARTEN: THE EARTH AS THE HOME OF MAN

This course serves as an introduction to the other primary grade courses in the curriculum. It introduces children to the idea of a world of many peoples whom they will study in more detail during the primary grades. It presents a number of geographic concepts which will be reviewed and developed more fully during the rest of the elementary school program. The next courses will also develop many more geographic concepts than can be taught in kindergarten.

The kindergarten course acquaints pupils first with their local area,and then with the world as a whole. It introduces simple map and globe skills. Stress is placed upon the use of pictures and other visual materials, upon direct observation within the community, upon manipulative activities, and upon the use of children's literature to teach children about other peoples of the world. Several of the units are not to be taught *in toto* at any one time; rather, activities are to be scattered at appropriate points throughout the year. These units are indicated below.

This course is designed to follow the typical kindergarten unit which introduces children to their school.

The course includes the following units, in the suggested order of teaching:

Unit 1--The Earth as the Home of Man

Children explore their own neighborhood, learn simple site concepts illustrated in the neighborhood, learn something about directions and distance, and make simple maps.

Unit 2--A World of Many Peoples

This unit uses children's literature to help children find out about the many different peoples of the world. The emphasis is upon diversity and upon the psychic unity of mankind. The unit is not to be taught in its entirety at one time; rather, books are to be used with children throughout the year.

Unit 3--Our Global Earth

Children review the use of maps to represent reality, study new site concepts, and learn about globes and the effects of globalism upon seasons and upon night and day. Part of the unit is taught at one time, but the rest is scattered throughout the year at the appropriate seasons.

Unit 4--A Home of Varied Resources

Children study different neighborhoods within the community, noting diversity among them and the ways in which they are interdependent. They also study the interdependence of the world in terms of things which come from other places and things made in the community which are sold in other places. They begin to generalize about the reasons for this interdependence.

Unit 5--Man Changes the Earth

This unit makes use of the community, of children's picture books, and other pictures and films to show how man changes the earth.

GRADES ONE AND TWO: FAMILIES AROUND THE WORLD

The Focus of the Two-Year Sequence

This two year sequence focuses upon "Families Around the World." Children will study families from different societies, including a family from a non-western culture at each grade level. They will be asked to make comparisons with their own families. At the end of each year, they will look back over the families they have studied and will be asked to generalize about families in their own community as well as around the world.

The family is being used as a vehicle to teach a series of important social science concepts related to culture, social organization, social process, and site. The families studied have been selected carefully to point up cultural diversity, to help children recognize the uniqueness of culture, to show that culture is learned, to teach children about norms and values, and to emphasize cultural universals and the psychic unity of mankind. The selection of families with very different structures and role differentiations will help to emphasize the variability of human behavior. The study of these families should also teach ideas about structure, role, role differentiation, and function. Despite the diversity, children will notice cultural universals. They will note that all people have to satisfy certain basic needs, but that they satisfy them differently. They will learn that all societies have families and some ways of socializing children.

The families to be studied have also been chosen with a view to teaching pupils different site concepts. Consequently, children will study families in different types of physical environments, including mesas in a desert area, forested areas, a high plateau in a mountainous area, a flood plain, a grassland area and a seaport. They will study families in large cities and in small towns and Indian villages. Each unit begins with some study of the site characteristics of the place where the family lives. Children will also review and extend their map and globe skills as they study each unit.

The Center recommends that schools in states outside of Minnesota have children study the family in an Indian group which inhabited the area in which children live rather than the Chippewa Family. By comparing the way in which these Indian families lived with the way in which their own families live in this area today, children should begin to understand the idea of the cultural use of the environment.

The two-year sequence has also been designed to introduce pupils to the idea of cultural change. Children study a colonial family in Boston. This unit is included to show how the functions of American families have changed. The Hopi, the Chippewa, and the Japanese units contrast families in these cultures in two different periods. By showing change among the same group in the same area, the units also contribute to the idea of the cultural use of the environment rather than the deterministic viewpoint which at one time dominated the teaching of geography.

The purpose of having children study more families than those included in grade one is to make sure that they will be able to generalize about cultural diversity, uniqueness and universals. Time should be saved at the end of the second grade for a culminating period in which children will fit together all that they have learned about families and about culture, social processes, and social organization.

Children do not get bored by this two-year sequence on families, since each unit focuses upon a very different culture. Children are not just studying the family as an institution for two years. It is important to note that this is not the last time that children will study the concepts and generalizations identified for these two courses. This two-year program is part of a K-12 curriculum which has been planned to provide continuity and sequence in the development of concepts, generalizations, skills and attitudes. Therefore, these concepts are introduced in grades one and two but are reinforced through other content at later grade levels. As children advance in school they will become more sophisticated in their understanding of the concepts and generalizations and will increase the number of their generalizations about each concept.

The teacher could substitute different families for those chosen for this course. As other curriculum projects develop materials on families around the world and as films, filmstrips, and children's books become available on other families, a teacher may wish to make substitutions. She should be very careful in doing so, however. At least some of the families chosen should illustrate rather dramatic differences in family structure, functions, values, and roles. The families chosen should continue to provide opportunities for study of varied types of site characteristics. Moreover, if different families are substituted, the teacher should handle the units so as to teach the same concepts and generalizations as those identified for the present program.

The teacher could have very able second graders find out about other families than those studied by the class. These children could tell the class about differences and similarities between the families they have read about on their own and the ones studied by the class.

General Outline for Two-Year Sequence

The units for the two-year sequence are listed below, with brief descriptions of some of the characteristics of each type of family and site.

Grade One

Unit 1--The Hopi Family

The study of the Hopi in the early 20th century provides an example of a culture in which roles in the family are differentiated in a very different fashion from the ways we assign them. Thus it provides an excellent example of the possible variability in human cultures. The family structure among the Hopi was a matrilineal extended family. It included more than one nuclear family of mother, father, and children. It often included several families of married sisters, plus grandmothers and grandfathers and maternal aunts and their husbands all living together as a residence group and cooperating for many purposes, some of which are not the responsibility of the family in our society or are functions of our families to a much lesser degree. Certain relatives such as the child's mother's brother had responsibilities for socialization of the child which belong to the child's own father in our society. Productive tasks among the Hopi differed in assignment by sex from our own. For example, men wove cotton cloth and made clothes for their brides and other members of their families.

Hopi ethics and values stressed many qualities which are analagous to our own, but in other ways they were quite different. They emphasized the avoidance of violence and disputes. The Hopi rarely engaged in physical violence of any sort. They approved of non-aggressive behavior even when provoked to a point we would consider extreme. Hopi rules for behavior were different enough from our own to provide a contrast for teaching about concepts of cooperation and conflict and for teaching about rules and positive and negative sanctions as universal aspects of human society.

The Hopi lived on plateaus on top of mesas in the desert region of northeastern Arizona. The unit can be used to teach children about plateaus, mesas, cliffs, canyons, streams, springs, and irrigation. Children also learn about one type of primitive farming.

The unit also includes material on the Hopi of today.

This contrast with the Hopi of the early 20th century permits pupils to generalize about cultural change and continuity.

Unit 2--The Chippewa Family (for children in Minnesota)

This family provides a contrast with the children's own families in terms of the independence of the family unit and the many functions the family fulfilled on its own. The Chippewa family unit of mother, father, and children provided almost all of their raw materials and processed materials for food, clothing, shelter, medicine, etc. It provided almost all training for the child's future life. The Chippewa family can be used also to illustrate the great differences in role expectations between sexes.

This unit focuses upon life in the coniferous forest and lake region of northern Minnesota, but also shows the movement of families into the hardwood forests and prairie areas. Children will study concepts such as softwood and hardwood forests, prairies, lakes, rivers, and swamps.

Unit 3--The Quechua Family of Peru

The Quechua are the modern descendants of the Inca--the South American Indians whose empire extended over much of modern Peru, Bolivia, and Ecuador until they were conquered by the Spanish. "Quechua" designates the language still spoken by these people who number several million at the present time.

The highland Indians live in peasant communities which are fairly isolated, autonomous, and cut off from the intimate contact with the larger society of which they are part. They produce their own food and most other things they use. However, they also sell a small amount in the market to acquire cash for the things which they wish to buy. They are largely self-sufficient and self-contained and suspicious of the outside world.

The peasant community generally consists of several extended families which are related through marriage (the ayllu). In contrast to our system, the whole community or ayllu is essentially a family group. An individual has some sort of kin relationship with reciprocal responsibilities and norms of etiquette with everyone else in his community.

The Quechua nuclear family group makes up the household. It provides an excellent example of children's roles which differ from those in our society. For example, male children begin to work in the fields at the age of five or six. Girls can often do most of the essential household tasks by the time they are the age of the average fist grader in this country. Sexual differentiation of roles is very marked even by this age in contrast to our own society where boys and girls often do many of the same tasks and play similar games. Among the Quechua there are very clear boundaries of permissible behavior according to sex at an early age.

The Quechua also offer a good example of a culture in which a relatively great amount of outward expression of conflict is permitted in relationships both within the family and within the community. They thus offer a useful contrast to the attitudes toward conflict found among the Hopi.

The Quechua provide a colorful example of a people who live on a very high plateau in the mountains. Children can learn about a number of site concepts such as mountain, valley, plateau, vertical climatic differences, and terracing.

Unit 4--The Japanese Family

This family was chosen because of certain marked contrasts with the other families studied. The traditional Japanese family system is characterized by an extended patrilineal and patrilocal family. That is, descent is traced in the male line and brides at marriage go to live with their husbands, who, if they are the family heir, continue to live ideally with their parents. The Japanese household is a corporation that ideally has perpetual existence. Once established, a household line should not be allowed to lapse. The household group contained in the past and often still contains more than one nuclear family. Even when married sons live elsewhere, as non-heirs usually do, they often act as members of the family group. The household includes departed deceased members, as well as living members. All regular household members are enshrined at the family alter and continue to function as family members in several ways. For example, Japanese children are taken before the household shrine and asked: "Do you think you can give the ancestors any excuse for doing that?"

Outside of such a family group a human being in Japan would be said to be socially non-existent. Within the group he is a member perpetually, even after death. Thus the household group provides an atmosphere of psychological security which the family system of our society does not provide, since our system emphasizes the husband-wife relationship and the establishment of new nuclear families by its children.

The Japanese family is also a religious unit, providing the congregation for ritual recognition of ancestors.

The structuring of relationships among living members differs considerably from those of our families. For example, the position of aged members was and is one of authority and prestige. Moreover, new brides are brought into a family at the bottom of the rank order of authority in most situations. Although the focus of this unit is on the traditional family, the unit attempts to show change in the family and its ways of life in the modern day.

Most of this unit deals with family life in a village on a flood plain surrounded by mountains in the interior of one of the Japanese islands. However, the unit also presents a brief contrasting picture of life in a fishing village along the coast and life in a modern city. The unit can be used to teach geographic concepts such as ocean, island, mountain, hill, flood plain, river, terrace, rice paddy, farming, fishing, village, city and population density.

Grade Two

Unit 1--The Colonial Family of Boston

This unit provides children with data from which they can generalize about changes and cultural continuity in the American family. It illustrates very clearly, for example, changes in economic functions of the family. The colonial family provided most of its own food, clothing, shelter, and utensils. The unit also illustrates great changes in material possessions from colonial times until now. The colonial family illustrates very different norms and attitudes (about table manners, behavior on Sundays, unmarried people, etc.). However, children will recognize a number of ways in which relationships between parents and children resemble those of today.

This unit permits pupils to study the concepts of harbor, peninsula, and seaport and ways in which man has changed his physical environment (for example, by filling in large areas of water around the original peninsula on which Boston was built). Children can also review site concepts such as river and hill.

Unit 2--The Soviet Family in Moscow

This unit provides children with opportunities to study family life in a large city in which life differs in many ways from life in American cities. However, family structure is much like that in the United States, although wives are more likely to be working. The Soviet family is affected in many ways by the Soviet political and economic system. Children will see these differences in such concrete terms as housing, stories, government services, nurseries, youth groups, socialization, role of women, etc. This unit also provides a sharp contrast with some of the other families children study in the first two grades.

Moscow is located on a river in an area which has very cold winters. The city illustrates the way in which cities are divided into a number of sections which differ from each other in terms of types of buildings and functions.

Unit 3--The Hausa Family in Northern Nigeria

The Hausa family has a very different type of family structure than any which children have studied earlier. The family is polygynous, with the man having more than one wife. Each wife has her own house within a larger compound. The attitude toward women differs markedly from that in our own society.

The Hausa have a settled agriculture rather than the slash and burn type practiced in many parts of Africa. They also have important trade relations with other people. They produce goods for market in order to buy goods which they do not produce themselves.

The Hausa live in northern Nigeria in a grassland area of scanty rainfall. The area has more precipitation than that found in a desert region. The unit can be used to teach pupils about the effects of oceans upon rainfall and temperature and the effect of precipitation upon vegetation within the different regions of Nigeria.

Unit 4--The Kibbutz Family of Israel

The family was chosen because it illustrates a family with about as few functions as can be found anywhere. The family members do not all live together in one home. Children are brought up from babyhood in nurseries and in homes for children. They are separated by age groups and recieve much of their socialization from women who are not members of their family. The community provides the food, clothes, and other things which families need. However, a study of the Kibbutz family shows that some family functions remain. The family has an important affectional and emotional support function. It retains some of the socialization function. Although the individual family has lost the usual economic function found even in industrialized societies, parents contribute to the community economy which then provides for community members. Of course, the family also retains the procreation function. This unit, like that on the Hausa, can be used to teach children a number of economic concepts (division of labor, interdependence, etc.). Children will learn that in one sense the entire Kibbutz community is like an extended family. Since children study the community to study the family, this unit provides a useful transition to the course on "Communities Around the World" in grade three.

The Kibbutz on which this unit focuses is located in a Mediterranean climate of hot, dry summers and wet, cool winters, although children will find out that others are located in desert areas. Children will learn much more about irrigation as they study this unit.

GRADE THREE: COMMUNITIES AROUND THE WORLD

The Focus of the Third Grade Course

In this course the emphasis in the curriculum shifts from "Families Around the World" to "Communities Around the World." In grades one and two the family was used as a vehicle to teach a series of important social science concepts related to culture, social organization (including the family as an institution), social process, and site. In grade three the community is used as a vehicle to teach about more social institutions and to build upon the social science concepts developed earlier. By focusing upon communities and cultures not studied earlier, this course provides the data for further generalizations about cultural diversity and uniqueness, norms and values, and culture as learned behavior. The study of new cultures will support and expand children's previous learning about cultural universals and the psychic unity of mankind. (It should be noted that again children study a non-western culture during the course of the year.) As in grades one and two, the communities are used to teach children more site concepts and to review and extend their map-reading skills.

General Outline of the Course

Grade three includes the following units:

Unit 1--Rural and Urban Communities in the United States

This unit focuses upon the study of the children's own community but includes the study of a contrasting rural or urban community which is located nearby.

Unit 2--An American Frontier Community: Early California Gold Mining Camp

This community was chosen to emphasize the need for law and government and the way in which people take their culture with them to new places.

Unit 3--The Manus Community in the Admiralty Islands

This community is studied in two periods, both before and after contact with American soldiers during World War II. The unit emphasizes change through cultural diffusion, the persistence of some cultural traits despite drastic change, and the cultural use of the environment.

Unit 4--The Paris Community

This community has been chosen to illustrate an urban community in another culture. It provides a contrast with the urban community studied in the local area and illustrates both diversity and cultural universals.

As children study each of these communities, they also study the situation of the community in relationship to other places, the site of the community, and a number of geographic concepts and generalizations. In addition, they review and expand their map and globe skills.

GRADE FOUR: COMMUNITIES AROUND THE WORLD: THEIR ECONOMIC SYSTEMS

The Focus of the Fourth Grade Course

The fourth grade course continues to use the theme of "Communities Around the World," but the course has an economic emphasis. The different communities are used as vehicles to teach children about contrasting economic systems. Children will spend a large portion of their time finding out in simple terms how our own economic system operates. However, they will discover that in some societies the government plays a much greater role, and that in some societies there is much greater emphasis upon exchange through traditional reciprocal relationships than by a market system or governmental decisions. Children will see that the total way of life, including cultural values and the social system, affects the economic system.

Although the focus of the fourth grade course is upon economics, the economic institutions are added to other institutions studied in earlier grades. By the last half of the course, children will be studying total cultures in order to see the relationship of the economic system to the rest of the culture. This means that the course continues to develop concepts related to culture, social organization, and social processes. Children should acquire data to enable them to generalize more fully and carefully about cultural norms and values, about culture as learned behavior, about cultural diversity, and about cultural universals and the psychic unity of mankind. They should also be able to generalize more fully about concepts related to social organization, social processes, and cultural change.

The communities are also used to teach children additional site concepts and review many of the site concepts and geographic skills learned in earlier grades.

General Outline of the Fourth Grade Course

Unit 1--Our Own Community--An Economic Emphasis

This unit begins with family experiences which children can draw upon to develop simple ideas about consumer and capital goods, durable and non-durable goods, the production of goods and services, and producers. Still using family experiences and the local community, the unit helps children understand the concept of economic scarcity. Children develop a simple flow chart to help them understand how our economic system operates. They gradually add more and more variables to this chart. The unit helps children learn about barter, money, and banks. Children study different factors of production, learn the role of savings in investment in capital goods, and analyze ways in which organization of production (e.g. division of labor, specialization, mass production) affect output and interdependence. Children also look at factors which affect consumer choice, factors affecting prices and wages, and ways in which business firms compete and are organized.

In the last part of the unit, they are introduced briefly to the idea of overall economic planning of a different type than that found in the Soviet Union.

Although this unit focuses upon economic institutions, children study the larger culture of the people in order to find out how cultural values and norms and how social institutions (particularly the caste system) affect the economic system.

The unit is also used to review a number of geographic concepts, generalizations, and skills and to teach new ones.

* * * * * * *

Each of these units calls for a slightly different emphasis upon kinds of materials used. Unit one depends largely upon the use of community resources, upon things which pupils can see, visit, or find in their own area. Unit two depends more heavily upon maps, audio-visual materials such as pictures, films, and filmstrips, and having the teacher read stories or descriptions aloud in class. Unit three calls for greater use of stories which have been prepared by the Center for the children to read. However, this unit, too, depends heavily upon the use of pictures. The last unit provides some written materials for pupils. These are of a more descriptive nature than most of the materials prepared for unit three. The unit on India also calls for reading aloud stories and descriptions and the use of pictures, filmstrips, and films. Both units three and four resemble the second unit in their use of many maps.

GRADE FIVE: REGIONAL STUDIES

The Focus of the Course

The fifth grade course shifts from the study of "Communities Around the World" to the study of how peoples, each with a different culture, use the same land. No attempt is made to cover all or any great part of the total land areas of the world; rather, a few topics are studied intensively.

The main theme of the course is that man uses his physical environment in terms of his cultural perceptions, values, and level of technology. The course centers on selected sequent occupance case studies showing how man has dealt with his environment over time. Pupils begin their study of each general area of the world (the United States, Canada, Latin America) by examining and comparing a series of map patterns

The unit continues to build some geographic ideas related to factors affecting where things are likely to be produced. Pupils spend considerable time trying to find out why certain goods are produced in their local community. The unit ends with an attempt to help children summarize the ways in which the market serves to help resolve basic economic questions and how the market is modified by government policies.

Unit 2--A Soviet Community--Urban and Rural

This unit provides a contrast to the pupils' own economic system and illustrates a modified command economy. Children draw upon what they have learned in the second grade course on the Soviet family to analyze how the Soviet people are affected by economic decisions of the government. They also study the operation of the economic system in more detail in both urban and rural areas.

Children study more site concepts about the U.S.S.R. as a whole than in the second grade. They are asked to draw many inferences from a comparison of different map patterns.

Unit 3--The Trobriand Islanders

This unit provides a useful example of an economic system in which exchange is affected far more by traditional reciprocal relationships than by either the market or any command system. However, as in earlier units, children find out that the economic system provides a mixture of traditional relationships, market, and government. They also find out how change has been taking place within the economic system and the wider culture. In order to teach these ideas, children look at the Trobriand culture as a whole, rather than just economic institutions.

This unit is also used to teach children a number of site concepts. In addition, it is used to teach them how to use the grid of parallels and meridians and an atlas index to locate places.

Unit 4--A Village in India

Although this unit focuses upon a village in India and upon caste relationships which affect exchange in the village, it also presents a brief treatment of how life differs in cities. Children spend much time studying reciprocal exchange in the villages but find out also that the people in villages are affected in part by a market and by government policies.

and working out a system of regions according to selected criteria. The pupils focus upon a handful of case studies rather than a detailed study of each region.

Each case study is chosen with two purposes in mind: (1) It can be used to teach pupils more about the region within which it is located, and (2) It illustrates clearly one or more factors which bring about changing use of the land. For example, the case study on Phoenix shows changes resulting from technological developments. The study of the Red River Valley shows changes in crops grown in terms of changing markets. The study of Birmingham shows changes resulting from the discovery of or new perceptions of mineral resources. A more detailed examination of why each case study was chosen can be found in the general outline of the course below.

The General Outline of the Course

This course includes the following parts and units:

Part One--The United States

Unit 1--The United States: An Overview

This unit provides an overview of patterns of the United States. The unit helps pupils learn more about the geographer, his purposes and techniques. They use familiar surroundings to learn what is meant by a region and how different criteria can be used in regionalization. Pupils then work in groups to set up criteria and regionalize the United States. They compare their system of regions with those of several geographers. Pupils are asked to consider the different systems of regionalization as they study different parts of the country in more detail.

The unit reviews many concepts, generalizations, and skills learned in earlier grades, but it also provides techniques for teaching them if pupils have not come through the earlier course. Much attention is given to developing map reading skills and having pupils draw inferences from a comparison of different map patterns.

The order of the other units on the United States should be determined by where pupils live. They should begin with the unit on their own region.

Unit 2--The Midwest

This unit is divided into three sub-units: two sequent occupance case studies, followed by a look at the region as a whole. Pupils should begin with the first sub-unit on the Twin Cities. The sub-unit on the Red River Valley is optional; it has been developed primarily for schools in the Upper Midwest region. The class should be sure to include some study of the third sub-unit on the region as a whole.

Sub-unit one--Case Study on Twin Cities

Pupils look at the Twin City area when Indians were the chief inhabitants, in the days of the earliest white settlements, in the lumber and flour milling era, and today. The case study depicts one city which grew up around a water power site and another which developed at what was then the head of river navigation for steamers. The case study also illustrates changing use of the environment as a result of a number of factors such as differences in Indian and white men's culture, scientific and technological changes (in types of transportation, in the development of new kinds of wheat varieties, in the development of new kinds of milling techniques, etc.), the exhaustion of a specific resource (lumber), and the development of new ideas for industry by men in the area.

Sub-unit two--Case Study of the Red River Valley

Pupils look at the Red River Valley in four different periods: when it was occupied by Indians, in the days of the early fur trade, in the days of bonanza wheat farming, and today. The case study illustrates changing use of the environment as a result of such factors as habitation by different cultures (Indians and whites), scientific and technological changes (in types of transportation, seed development, development of farm machinery), depletion of soil fertility by farming practices, and the need to adjust crops to changing prices on the new world grain markets.

Sub-unit three--The Region of the Middle West

Although the earlier case studies have helped pupils learn something about the relationship of the Twin Cities and the Red River Valley to the Midwest as a whole, as well as to the nation and other countries, this sub-unit looks more closely at the chief characteristics of the entire mid-west region and raises the question: Should the Upper Midwest be included in the same region as the rest of this area?

Unit 3--The Northeast

This unit is divided into two major parts, both included in the same resource unit. The first and longer part provides a case study of sequent occupance in New York City. Pupils look at how the early Indians lived in the area, at the early Dutch settlement with its fur-trading and poltroon landowning system, at New York in the late 18th century, at the city in the middle part of the 19th century, and at New York today. The unit illustrates the development of an important port city at a good natural site. It also illustrates changing use of the environment in terms of a changing situation (in part because of the development of a canal and because of the growth of population in the United States). The unit helps children understand why certain kinds of businesses tend to locate in certain places. It also introduces children to a number of urban problems which have developed in large cities in this country.

Following the study of New York City, pupils turn to the wider region of the Northeast. They examine the chief characteristics which make this area different from other regions.

Unit 4--The South

Unit 4 is divided into two parts, both included in the same resource unit. The first and major part is a case study of sequent occupance in Birmingham. Pupils look at the area in 1815 when it was occupied by a few Indians and a few white farmers. They look at it next in 1872 just after the town of Birmingham had been founded, and they look at it again today. This case study illustrates changing use of the area in terms of different perceptions of natural resources (in this case iron), in terms of scientific and technological developments such as railroad and river development, new processes for making coke and steel, and discoveries which made possible the use of former waste products from the processes used in making coke and steel.

In the last part of this unit, pupils turn to the wider region of the South. They note different characteristics in different parts of the South and try to decide what criteria are used to set the South off from other regions in the country.

Unit 5--The West

This unit is divided into four parts: Phoenix and the

Intermountain West, Los Angeles and the Pacific Southwest, Seattle and the Pacific Northwest, and The West as a Region. The teacher and class should study one of the case studies and then move on to the West as a Region. Their choice of a case study should depend upon several factors. If pupils live in one of the sub-regions, they should probably study it. If not, it is probably wise to study Phoenix rather than one of the other two; the class has already studied one large port city, and Phoenix illustrates certain things which pupils have not studied earlier. Whichever case study is chosen, pupils will divide into groups to study the other sub-regions in less depth when they look at the region as a whole.

The sequent occupance case study on Phoenix calls for study of the Indian civilization which was built upon irrigation in the desert region. Pupils then look at how the early white men built a hay camp there for a nearby army post, how the town of Phoenix was developed in the 1860's and 1870's, what Phoenix was like in the 1940's after the building of a number of large dams, and what Phoenix is like today. The developments illustrate the importance of irrigation and the development of new techniques to prevent the alkalization of the soil as a result of irrigation, the effects of a new invention (air conditioning), and the results of a changing situation as a result of rising living levels in other parts of the country. Following the study of Phoenix, the sub-unit turns to the hinterland for which Phoenix serves as a center.

In the sequent occupance study of Los Angeles, pupils look at the Spanish settlement in 1800, at the American frontier town of 1850, after gold had been discovered near San Francisco, at what happened to the city by the period 1910-1914, and at Los Angeles today. The case study illustrates the use of the land by different cultures (Indians, Spanish, and Americans). It illustrates the development of a port city as the result of a man-made harbor and the development of railroad routes to the city. It also illustrates change as a result of such factors as the development of huge water diversion projects, a changing situation nearby (in the gold fields) which meant an increased demand for food products, the effects of the discovery of oil in the city, and the development of industries which were aided by the type of climate found in the region. The case study also illustrates some of the growing urban problems in this country, such as smog and traffic congestion.

Following the study of Los Angeles, the unit turns to a study of the wider Southwest Pacific coastal region. Pupils study the characteristics of this region and notice differences within it.

Sub-unit three begins with a sequent-occupance study of Seattle. The same kind of pattern is followed as in other case studies. Pupils look at how the Indians used the area, how the first settlers used the area, how the area was developed into a great lumber-producing area as the result of a changed situation in terms of railroad transportation and the decline of forest resources in other areas, how the area was affected by the gold rush to Alaska, and how it was affected by war. This case study illustrates again the development of an important port city where a good natural harbor has been improved and has been tied to an extensive system of land transportation.

Following the study of one of these case studies, pupils turn to a brief sub-unit on the West as a Whole, including the great plains area. They try to identify the difference among the different sub-regions of the west as well as the characteristics which set the West apart as a larger region from other regions in the country.

Part Two--Canada

Part two is developed within one resource unit. The approach differs somewhat from that used in the study of the United States. Pupils begin by obtaining an overview of patterns of Canada and developing a system of regionalization for the country. They then work in groups to prepare illustrated studies of a series of important towns and cities on a traverse across southern Canada from west to east. The study of these towns helps gives pupils a little more understanding of the regions within which they are found. Pupils look first at the city today and then identify factors which helped bring about the present development. During the last part of this unit, individuals and groups of pupils present the results of their research on a series of case studies of other towns or cities. These case studies are all chosen to illustrate the effects of some important discovery, technological development, or other cultural development. Each case study deals with a development in an area which was only sparsely populated or almost unused until relatively recently. These case studies illustrate in a dramatic way the fact that man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

Part Three--Latin America

One resource unit provides an overview of patterns of Latin American and illustrates how the area can be regionalized on the basis of different criteria than those used in earlier parts. Pupils then study a series of case studies on Buenos Aires, Manaus, Sao Paulo, Chile, and Cuzco. Or the teacher may decide to focus upon only two of these. Each region is chosen so as to illustrate a different population composition, as well as other kinds of differences. There are separate sub-units on each of these case studies. At the end of the course, pupils spend some time looking once more at Latin America as a whole and generalizing on the basis of the entire year's course.

GRADE SIX: UNITED STATES HISTORY: FROM COMMUNITY TO SOCIETY

The Focus of the Course

The sixth grade course shifts from the study of geography to the study of the history of the United States. No attempt is made to teach all of the traditional topics in American history. Rather, this course has been articulated with the tenth grade course to try to prevent duplication. For further discussion of the way in which the two courses are related, the teacher should read the teacher's guide on how the sixth grade course fits into the overall curriculum. Those topics chosen for study in the sixth grade course were considered particularly appropriate to pupils' maturity and interest and are useful in developing ideas about culture, cultural use of the environment, culture contact, culture change, and cultural diversity.

The course also emphasizes the need for careful evaluation of sources of information in terms of bias and competency of the producer. Pupils use varied source materials as well as textbooks and many non-text materials as they study this course.

The General Outline of the Course

Unit 1-- Indian America Before the White Men

This unit uses case studies of two Indian cultures, each of which came into contact later with a different group of European colonizers. Pupils study the Aztecs, who were later conquered by the Spanish, and the Iroquois, who came into contact with both the French and the English. Pupils study the Aztecs and the Iroquois as total cultures and draw comparisons between them.

Unit 2--Spanish and French Settlement of North America

This unit deals briefly with reasons for colonization of America. It then turns to the Spanish settlement of Mexico, the way in which the Spanish took their culture with them to the new world, differences in the way in which the Aztecs and the Spanish perceived the same environment, the contact of the Spanish with the Aztecs, and cultural diffusion.

In the next part of the unit, pupils turn to the French settlement of Canada. They study it in much the same way that they studied the Spanish colonization and contact with Indians. Pupils contrast the French and Spanish settlements as well as the European and Indian cultures which came into contact with each other.

Unit 3--English Settlement of North America

This unit uses case studies of the settlements of Jamestown and Plymouth to illustrate both similarities and differences in the English settlement patterns. The unit describes English contact with the Iroquois and other Indian groups and it contrasts their cultures. Pupils also compare the English settlements with those of the French and Spanish.

Unit 4--Revolutionary America

This unit uses case studies of Williamsburg and Boston in the eighteenth century to show change and continuity with the earlier English settlements at Jamestown and Plymouth in the seventeenth century. The unit also examines some of the changes which led to the revolution and deals with the Revolution itself.

Unit 5--National Expansion

Unit five traces internal migration and immigration into the Old Northwest and the New South. Pupils note how different streams of immigration from the Atlantic seaboard moved to different places in the old northwest and southwest and how the differences in their cultures resulted in differences in the places to which they migrated. Pupils trace some of the movement through the stories of certain families, such as the Lincoln family, the Douglas family, and the Houston and

Davis families. The unit also describes foreign immigration into this area of the west and the transportation developments which facilitated the westward movment.

Unit 6--The Civil War and Reconstruction

This unit uses the culture concept to analyze the causes of the Civil War. There is considerable emphasis upon conditions of slavery and some attention to the African background of slaves. There is opportunity for the study of some military history, but pupils also analyze the role of the Negro in the war. After examining the Reconstruction period, pupils turn briefly to the development of segregation in the South following the Reconstruction period.

Unit 7--The Completion of National Expansion

This unit begins with two case studies of Indians of the Plains: the Cheyenne and the Mandan. Pupils note the differences and similarities between these two cultures and how they used their physical environment. The unit then turns to the white men's perceptions of the great plains and to the effects of white-Indian contact in the plains area.

GRADE SEVEN: MAN AND SOCIETY

Focus and Dimensions of the Course

This course on "Man and Society" draws most heavily upon the field of sociology. However, it also uses much comparative material from anthropology, particularly in the units on socialization and on the family. The course builds upon what pupils have learned in elementary grades and presents a more systematic analysis of the main ideas from the field of sociology.

General Outline of the Course

The course on "Man and Society" includes the following overview and units. Each is explained briefly below.

Overview

The overview introduces pupils to the field of sociology. Pupils learn the meaning of the term behavior as this term will be used in the course. They are introduced to the concept of conflict but find out that the course will help them analyze all kinds of behavior--not just conflict situations. Much of the overview is devoted to a discussion of the meaning of theory and the need to test theories.

Unit 1--Man's Behavior, The Physical Basis

This unit analyzes different theories of behavior, including physical determinism and cultural determinism. The unit develops the idea that man's biological nature sets limits to and opens possibilities for his behavior but does not determine it. Pupils learn about some of the things which human beings have in common because of their physical inheritance and how human beings as a single species differ from other species. They learn that most human behavior is learned, even though some physical traits do set off certain groups of people (such as the two sexes) and even influence their behavior. Pupils analyze attempts to distinguish between races. They learn that there are more similarities than differences among human beings and that culture is more important than physical differences in affecting how different groups of people behave.

Unit 2--Socialization

This unit focuses upon the process of socialization. Pupils learn that man's biological nature makes socialization not only possible but necessary. (Again they make comparisons with other species.) Pupils analyze speech and communication in more detail than in unit one, and learn that language is necessary for the development of an on-going culture and abstract reasoning. By using comparative material from other cultures, pupils find out that men are extremely plastic, that they are able to satisfy basic needs in a variety of ways, and that each group develops a different culture which young people in that group learn. Pupils become aware of how children learn through the process of role-taking and how each person develops a self. They find out that socialization involves teaching children both norms of behavior and values. Finally, pupils learn that socialization takes place through a number of societal agencies, including the family, and that socialization is a life-long process.

Unit 3--The Family

This unit uses both historical material and comparative material from other cultures to teach pupils about family functions and structure. They learn that families differ from society to society both as to how they are organized and as to the functions performed, although families everywhere fulfill a few basic and signifcant functions. Pupils learn, too, something about factors bringing about change in families and about the interrelationship of the institution of the family to other social institutions. The unit also develops the idea that most of the social processes found in society as a whole also are found within the family.

Unit 4--Our Behavior in Groups and Crowds

In this unit, pupils analyze the meaning of institution. The unit focuses upon education as an example of an institution. Pupils look at differences over time and place in how societies educate the young. The school is used as a case study to teach pupils something about organization within groups and the tendency toward bureaucracy. They learn something about the workings of bureaucracies and find that much of behavior within a bureaucracy cannot be accounted for by the formal structure. Pupils also study the ways in which small groups influence behavior. They analyze differences between behavior in crowds and behavior in integrated groups.

Unit 5--Intergroup Relations

Pupils now apply concepts and generalizations which they have learned earlier to an analysis of social problems growing out of prejudice and discrimination against minority groups in this country. The focus is upon a study of discrimination against the Negro, but the unit also deals with other minority groups. Having analyzed discrimination and its causes, pupils look at various factors which are bringing about changed relations in this country and analyze different types of proposals for reducing discrimination still further.

GRADE EIGHT: OUR POLITICAL SYSTEM

Focus and Dimensions of the Course

This course focuses upon how our own political system operates and how citizens affect its operations. The emphasis is upon decision-making--at the level of the individual, at the level of interest groups and political parties, and at the level of government officials. The approach is behavioral rather than structural. That is, it focuses upon factors which influence the behavior or decisions of people as voters, members of groups, or members of governmental bodies. However, pupils are also taught how government structure affects power relationships and decision-making. The course also attempts to show the political system as a system in which all components or parts are interrelated in various ways.

The eight grade course draws most heavily upon the discipline of political science. Nevertheless, it does not ignore all of the other social science disciplines. Present-day political scientists make heavy use of concepts and techniques of inquiry from sociology. Therefore, this course must do so, too, if it is to mirror modern political science. Indeed, the course has been placed after a seventh grade course which focuses upon sociology so that pupils can draw upon sociological concepts as they study political behavior.

There is another way in which this course is interdisciplinary. Some of the case studies focus upon problems and topies which are studied primarily by the sociologist. Although case studies have been developed with the primary purpose of providing raw data from which pupils can generalize about political processes, topics for case studies have been selected with other criteria in mind. First, topics have been selected because they were thought to be interesting enough to eighth grade pupils to hold their attention and lead to an interest in the political process. Second, topics were chosen because they were thought to be related to important problems which face and will probably continue to face Americans for some years to come. Third, some of the topics were chosen because it was thought that they dealt with value conflicts which pupils needed to analyze if the attitudinal goals of the staff were to be realized.

As conditions change, new case studies can be substituted to teach the executive, legislative, and judicial processes. In this way the curriculum can be kept up-to-date in terms of trends and problems of the world while still retaining a basic framework for the study of our political system.

The eighth grade course draws upon the field of anthropology for some of the material in the overview. Political scientists have paid little attention to the political systems of primitive societies. However, some study of primitive law and government provides such a sharp contrast to our own that it helps pupils understand more clearly the need for law and government as well as the relationship of law and government to non-political institutions and the culture as a whole. This material has been included at the beginning of the year in part because some eighth grade pupils are going through a stage of revolt against authority and may come to the course thinking of laws and government only in a restrictive sense. Until they see the need for law and government, there is little purpose in attempting to have them study our political system.

Finally, the course draws heavily upon all of the social sciences in non-election years when an area study of the Middle East is taught. This unit and its place in the course are described later.

General Outline of the Course

The course on "Our Political System" includes the following units. It should be noted that the second unit is to be taught in differing degrees of depth in election and non-election years. The unit on the Middle East is to be taught only in non-election years. This variation in alternative years is explained below.

Unit 1 --Overview of Our Political System

The unit analyzes political conflict, compromise, and the need for government and law. It examines American political ideals and contrasts them briefly with other political ideologies. It provides an overview of our federal structure and of our theoretical system of separation of powers. These facets of our political institutions are contrasted briefly with unitary and parliamentary systems. The unit establishes questions to use in examining decision-making in later units. It establishes questions to use in evaluating political institutions against American ideals.

This unit has three main purposes: (1) to help pupils understand how conflicts among individuals and groups give rise to the need for law and government; (2) to provide pupils with some overall picture of the components of our political system and some of their interrelationships so that pupils can fit what they study in later units into this overall picture, and (3) to establish both normative and non-normative questions which pupils should ask as they examine the political system in more detail.

Although much time could be spent on the unit, it should be treated as an overview. The concepts and ideas introduced in it will be reinforced and studied in much greater depth in later units. For example, the concepts of political conflict and accommodation recur in each unit. Pupils will study the exectuive, legislative, and judicial processes in separate units. The idea of separation of powers is analyzed in detail in each of these units. Moreover, pupils study ways in which federalism affects our system of government in every unit during the year. Consequently, the class should spend no more than four weeks on this overview in unit one.

Unit 2-- Political Parties and Elections

This unit focuses upon political decision-making by voters as individuals and as they try to agglomerate their power by acting through political parties and interest groups. It analyzes political behavior and institutional factors which affect decision-making.

The unit begins by introducing pupils to problems related to political parties and elections before they study any aspect of the unit in more detail. There is then an attempt to show pupils that individual effort can count in the political process. Finally, pupils turn to a more detailed analysis of the unit topic, including possible reforms. Pupils analyze past and proposed reforms in terms of: (1) their past or probable effectiveness in achieving the goals perceived for them, and (2) possible problems which these reforms have or might raise--the unintended effects. In other words, the unit is problem-oriented.

During the course of their study, pupils are introduced to ways in which political scientists study voting behavior. They learn about sampling techniques and problems arising from interpreting data, including findings from correlational studies. Pupils then evaluate and interpret the data from a number of studies dealing with voting behavior and political socialization. They are asked to set up hypotheses about such behavior and to check these hypotheses against data in numerous tables. They are asked to figure out the limitations of the data in the tables and to identify other kinds of information needed before arriving at conclusions.

This unit is to be taught in a much condensed form during years when there is no national election. During such years, pupils are to turn to an area study of the Middle East at the end of the year. (See below.) This area study is also taught in the ninth grade in non-election years.

In election years, the area study is omitted at both grade levels and pupils study the current political campaign and election. In the eighth grade they do so as an integral part of this unit on Political Parties and Elections. In the ninth grade they review some of the things they have learned in the eighth grade unit, apply what they have learned to the current election, and deepen their understanding of political behavior, political parties and elections. They do this primarily through intensive current affairs study, rather than in a separate unit.

Those who teach this unit on Political Parties and Elections in non-election years will naturally omit the suggestions for studying the current election campaign. They will also study voting behavior and political party activity in less depth, since pupils will study them in more detail the next year during a compaign, when interest should run higher and numerous current examples can be identified. In non-election years, the eighth grade teacher should keep a record of what he does and does not cover for use by the ninth grade teachers the following year. Even in non-election years it is essential to deal to some extent with political socialization, voting behavior, the role of political parties and interest groups, difference of opinion within each major party, the decentralized nature of our political parties, and the role of election in a democracy.

Unit 3 --The Executive Process

This unit focuses upon factors influencing and limiting executive decision-making. Although the greatest emphasis is upon Presidential decision-making, attention is also given to decision-making at the state and local level. In addition, the unit helps pupils understand how members of the executive branch may be involved in both the legislative and judicial processes and how legislators and judges in turn are involved in the executive process.

Although pupils have been introduced to the factors affecting decision-making by voters, this unit sets up a decision-making matrix to be used as pupils study each of the later units. Pupils analyze a number of factors influencing and limiting decision-making by executives. In later units they try to find out whether similar factors influence and limit other governmental decision-makers.

The unit relies heavily, although not completely, upon the use of case studies which provide narrative data from which pupils can generalize about decision-making. Pupils study two examples of foreign policy decision-making. The first was Truman's decision to drop the atomic bomb at Hiroshima. The second case study on Cuba contrasts Kennedy's Bay of Pigs and Quarantine decisions. The unit also deals with two cases related to domestic issues. One focuses upon Eisenhower's decision to send troops to Little Rock during the school integration crisis after Governor Faubus had decided to use the national guard to keep Negro children out of a formerly all-white high school. The other deals with the decision of Governor Freeman of Minnesota to use the national guard and declare martial law in a city where violence had broken out during a strike. These two cases permit pupils to contrast decisions by two governors who both used the national guard. In addition, pupils learn about how different administrative agencies may clash as they study Truman's decision to close off sections of a national forest area to planes. The unit also calls for the analysis of any current executive problem; pupils analyze such problems by applying what they have learned about decision-making in the other cases.

This unit makes it fairly clear to pupils that decisions do not always involve choice between black and white, good or bad alternatives. Pupils discover that frequently the President or any executive must choose between several alternatives, neither of which he may like. He must frequently act without as much information as he would desire, and he is limited by the time available to him as he faces the many different decisions which impinge upon him constantly in a job of enormous magnitude. Pupils can also see how his many different roles may conflict and how different role perceptions affect presidential decisions.

This unit should be taught before the one on the legislative process for several reasons. Pupils find it easier to analyze decision-making by one or a few men first than to do so when many more people are involved as in the legislative process. Furthermore, pupils tend to identify with executive decision-makers more than with congressional decision-makers and so became more interested in the political process.

Unit 4 --The Legislative Process

This unit focuses upon decision-making by individual legislators and by a legislature as a whole. However, it also helps pupils see that the legislative process is not carried on solely by the legislative branch of government and that the legislative branch plays a role in non-legislative functions. The main emphasis in the unit is upon decision-making in Congress, although attention is also paid to decision-making by state legislatures and local legislative bodies.

The unit makes use of a variety of materials. Like the executive unit, it draws heavily upon fairly long case studies which provide the narrative data from which pupils can generalize. For example, pupils study the passage of the Civil Rights Act of 1960, the attempt to change the Rules Committee in 1961, and the passage of the Civil Rights Act of 1964. In each case, pupils see the influence of public opinion, voters, and interest groups upon the legislative process.

Other types of materials help pupils understand role conflicts facing legislators and the effects of institutions upon power relationships and legislative decision-making. For example, pupils examine data from a study of role perceptions of state legislators. They analyze the composition of the House Rules Committee over a period of years in terms of representation by region, safe versus competitive districts, and rural versus urban districts in order to understand better the way in which the make-up of this committee affects legislation. Pupils examine the districts and voting patterns of committee chairman in order to study the effects of seniority upon legislative decision-making. They analyze the background of congressmen in order to identify possible influences upon their decisions.

As pupils study all of these materials they not only test earlier ideas about factors influencing decision-making, but they see clearly how political conflict arises in our society, how a legislature attempts to resolve conflicts, the importance of compromise in our political system, the role of political leaders, and the ways in which different parts of the political system affect the other parts. They also analyze some of the proposals made for legislative reforms.

Unit 5 --The Judicial Process

This unit was designed with two major purposes in mind. First, it helps pupils understand judicial decision-making. Pupils test earlier generalizations about factors influencing decision-making by judges. They also find that judges help make laws and that the judicial function is not carried out solely by the courts.

The second major purpose for the unit is to teach pupils more about the rights guaranteed to citizens by the federal constitution. This purpose is accomplished in part by the choice of the long case studies which are used to teach pupils about the process of judicial decision-making. For example, pupils study the Gideon case which deals with the right to a lawyer in state courts. It illustrates the extension of certain rights guaranteed in the U.S. Constitution to defendents brought before state courts. The case also illustrates the problems arising in trying to weigh several values in the decision-making process. In this case the conflict is between individual rights and rights of states within the federal system. Pupils also study the Irvine case which involved electronic eavesdropping by the police and the failure of the police to secure a search warrant. This case, too, illustrates the ways in which federalism has affected our court system and how our constitution has been modified by judicial interpretation.

Other materials and cases are also used to teach pupils about the bill of rights. For example, pupils analyze a series of first amendment cases. These cases are presented in brief form. They put the pupils in the position of trying to decide what decision they would make if they were the Supreme Court Justices. In addition, pupils study other materials which describe and analyze procedural safeguards for those accused of crimes.

Pupils have a chance to analyze some of the kinds of data collected by political scientists as they study judicial decision-making. For example, they examine data which permits them to assess the impact of different types of systems for selecting judges. They examine data to assess the possible effects of attitudes of judges upon their decision. They also analyze data comparing jury and bench decisions.

Like some of the other units, this unit has its problem aspects. After studying the operation of the system, pupils analyze a number of reforms which have been proposed for the administration of justice. They also have many opportunities to discuss some of the current conflicts over the rights of police and the public as against rights of those accused of crimes.

Unit 6: Decision-Making at the Local Level

This unit is much shorter than the others. The emphasis is upon having pupils use concepts learned earlier to analyze one or more crucial problems in their own community. Pupils identify and define problems and examine alternative ways of trying to solve them. They analyze power relationships, political institutions, and decision-making at the local level. They also note relationships with other levels of government. The unit calls for a contrasting study of a problem facing a large metropolitan area in their state if pupils live in a small town.

Unit 7: The Middle East (To be taught only in years when there is no national election.)

When studied in the eighth grade, this unit emphasizes two themes: (1) foreign policy decision-making in our relationships with Middle Eastern countries, and (2) Middle Eastern political systems as compared with our own. The unit provides for the additional analysis of questions related to geography, history, economics, and sociology as pupils try to understand the Middle East and consider problems related to making decisions about our policies toward the countries of this area.

Summary

At the end of the year it is wise to take at least a week for some kind of summary of the year's work.

GRADE NINE--OUR ECONOMIC SYSTEM AND SOCIO-ECONOMIC PROBLEMS

The Focus of the Ninth Grade Course

The focus of this course is on the American economic system, with some study of a contrasting economic system in non-election years (see below). There is considerable attention to certain aspects of consumer economics in the unit on the automobile industry; however, the main emphasis is upon developing economic literacy about ideas which the citizen needs to know in order to understand how our economic system operates and to evaluate economic proposals and economic debate both during and between election years.

The unit on the Middle East in non-election years is an area study, with a different type of unit organization from all of the others. It is developed so that the teacher can focus upon foreign policy problems facing us in the Middle East as well as upon a comparative study of other economic systems and socio-economic problems. Such study should serve to highlight some of the aspects of our own system.

The ninth grade course draws most heavily upon economics. However, considerable attention is given to sociological probllems and analysis in both problems units. The course also draws upon what pupils learned in the eighth grade course about the development of interest groups which attempt to affect policy decisions and about the varied influences upon political decision-making about economic problems. The course draws upon anthopology in the first unit in an attempt to make clear that our economic system is not the only kind of system, that any economic system is affected by the cultural values of the people and by the total social system, including the political system. The course draws upon geography as pupils look at poverty resulting from the exhaustion of resources in an area or from competition with new resources or products. Finally, pupils draw upon all of the social science disciplines in years when they study the unit on the Middle East. On the other hand, they build upon their knowledge of political science in years in which they study the unit on Political Campaigns and Elections.

After the curriculum has been instituted in a school system for a few years and pupils have come through the fourth grade course, the amount of time spent on some topics in units one and two can be reduced considerably. This will provide more time for study of certain aspects of the other units or even the inclusion of another problems unit.

General Outline of the Course

The ninth grade course includes the following units. It should be noted that the unit on political parties is to be taught in election years, the unit on the Middle East in non-election years. This variation is explained below under the unit topics.

Unit 1--The United States: An Affluent Society?

This overview of economics raises questions about what economics is and about kinds of economic questions which must be resolved in any society. It also raises the issue: Is our society an affluent society, or can we still say that our economic system must deal with the problem of scarcity? The unit helps pupils understand that any society has certain economic goals, but that these goals and economic motives differ from one culture to another.

Unit 2--The American Economy: How Our Economic System Works

This unit uses simulation games as well as other procedures to teach some basic ideas about the American economic system, including the components of the system and allocation under a market system, the way in which supply and demand affect prices, and the ways in whichpeople may agglomerate their economic power through labor unions or cooperation among producers. The unit also develops an understanding of our monetary system, the role of banks and the relationship of savings to investment. Some of the material in this unit is reviewed from the fourth grade course, but the ideas are developed with much greater sohistication than is possible with fourth graders and through a very different approach.

Unit 3--Farm Problems

The emphasis in this unit is upon such concepts as supply and demand, inelasticity of supply and demand, a competitive market model, alternative costs, and government actions which affect the market. The unit is organized around a problems approach. Pupils are introduced to farm problems. They investigate and define them more thoroughly and set up hypotheses about causes of these problems. They try to test their hypotheses, modify them, and work out new generalizations as they investigate causes. (This aspect of the unit is focused heavily upon supply and demand analysis.) Finally, pupils suggest alternative courses of action and investigate these, both through economic analysis and through a discussion of the value questions involved.

Unit 4-- The Auto Industry

This unit uses the auto, in which ninth grade pupils are interested, to introduce the study of a different kind of market and a number of new economic concepts. The unit has two purposes. First, it illustrates a market in which there is oligopoly rather than the kind of competitive market found for farm products. Pupils learn a number of economic ideas related to administered prices, non-price ways of competing for consumers (e.g. the use of advertising and product differentiation), mass production and the use of capital to increase production, and third party costs. This last concept is related to an analysis of the car-safety issues of recent years, costs of highway-traffic congestion, the problems of disposal of junked cars, and the problem of air pollution.

Second, this unit offers many opportunities to teach pupils consumer economics in connection with a topic which can also be used to teach them much about the operation of the American economy. Pupils can investigate topics such as advertising, credit, budgeting, the role of consumer agencies in providing information for consumers, legal responsibilities of car owners, and car insurance.

In schools where pupils study drivers' training at the ninth grade level, they might move from this unit to such a study, using the transition at the end of the unit provided by the issues raised about car safety in recent years.

Unit 5-- Poverty in the United States

This unit is organized as a problems-solving unit. Pupils are introduced to problems of poverty which they then attempt to define more carefully. They look at both statistical and other ways of analyzing and defining the problem. Pupils then study the causes of poverty, including such factors as old age, lack of education, discrimination against minority groups, automation, exhaustion of resources in an area, the loss of business because of the competition of new resources or products, and factors related to the economic growth rate. Finally, pupils turn to an analysis of alternative courses of action. This analysis involves both a study of non-normative questions and of normative issues.

Schools that teach an occupations unit in the ninth grade might find that the study of school dropouts and problems arising from lack of education and other training as our industry becomes more highly automated, could provide a useful background and introduction to the occupations unit.

Unit 6-- Units which alternate in election and non-election years

a. Election Year: Political Campaigns and Elections

This unit is to be taught as a part of the current affairs program during the election campaign. It should build and draw upon what pupils learned in the eighth grade course on political parties and elections. Emphasis should be placed upon some of the economic issues in the election campaign and some other economic aspects of the campaign such as alternative costs facing candidates.

b. Non-election Year: The Middle East: An Area Study

When taught at this grade level, this area study should emphasize comparative economic systems and socio-economic problems. However, it should not omit the other major topics discussed in the resource unit.

GRADE TEN:

The Focus of the Tenth Grade Course

This course has little resemblance to the typical history course in the senior high school. The course is highly analytical, drawing upon the concepts which pupils have learned from the other social sciences and giving pupils a chance to test some of them to find out if they are time-bound. Pupils will study the interrelationships among our social, political and economic systems. They will study the cultural assumptions which make one period different from another. And they will study factors resulting in social change. The course also continues to build new concepts and generalizations from the behavioral sciences.

The course is articulated carefully with the sixth grade course in American history in order to reduce the duplication which frequently is found between different courses in American history. The course is designed to provide for study in depth of those topics chosen. Consequently, some of the topics frequently studied are omitted altogether or are left for study in other grade levels.

General Outline or the Course

The course includes two parts, divided into six units. For a discussion of the major ideas developed in each, readers are referred to the background material provided by the staff's historian for each of the resource units. The course includes the following units:

Part One--The Formation of American Civilization, 1630-1870's

Unit 1--The Colonial Age, 1630-1760's

Pupils study the cultural assumptions of the colonists and the relationships between these assumptions and the development of institutions in this period. The unit focuses upon cultural migration and culture change. The unit is short but is included to provide a foil for later periods in order to show major changes in American culture.

Unit 2--The Republican Age, 1760's-1820's

This unit deals with 18th century principles and their effects upon Americans. Again, the chief interest centers upon the cultural assumptions of the people in this age. Key attention is given to the political system--to the development of the executive, and particularly to political party theory. The unit stresses the relationship of the political system with the economic and social systems.

Unit 3--The Democratic Age, 1820's-1840's

Pupils investigate changes in the social system, with particular attention given to voluntary associations which pioneered social reforms. The unit also examines changes in the executive under Jackson and looks at conflicting theories about the factors which brought about the growth of democratic thought.

Unit 4--Civil War and Reconstruction, 1840's-1870's

This unit focuses upon the attempt to apply the egalitarian ideology of the Democratic Age to the Negro and the ramifications of this attempt upon the political system. Students examine the Civil War as a case study of a political system in times of crisis. The unit stresses the cultural configuration of America at this time, with its emphasis upon middle-class individualism, so that students will understand why the struggle was a political one and why economic and social aid was not provided for the newly-freed Negroes.

Part Two--Modern America--1870's to Present

Unit 5--Industrialization of America, 1840's-1914

Students study the nature of industrialism and its ramifications in a wider context, a longer time span, and a more analytical manner than is traditionally done. This unit uses economic growth theory as a framework for studying American history from the 1840's to 1914 in order to emphasize the major shifts in the American economy which accompanied the changing nature of industrialism. Students investigate the ramifications of this industrial change for other aspects of the culture, such as social organization, political organization, and ideology. Considerable attention is given to the responses to industrialism, including the rise of labor unions and farm organizations and political developments of the Progressive period.

Unit 6--The Consumption Economy, 1920 to Present

This unit deals with the development of the consumption economy and with the social implications of such an economy. Major attention is given to the depression of the 1930's and an analytical study of the causes of business fluctuations. The unit also analyzes the extension of this consumption economy into the 1950's and 1960's. It ends with an analysis of American values and society today as compared to the colonial era.

GRADE ELEVEN: AREA STUDIES

The Focus of the Course

This course focuses upon area studies. It uses all of the social science disciplines to analyze the culture and problems of four selected areas: Western Europe, the U.S.S.R., China, and India. The reasons for the choice of these particular areas is noted below under the general outline of the course. The relationship of these area studies to other area studies and other parts of the curriculum is examined later. Here it should be noted, that there is no attempt to cover many areas; rather, each area is covered in some depth. An attempt is made to help pupils understand how different social scientists might study an area and how the kinds of questions which these social scientists would ask help one develop a better understanding of the area.

Emphasis is upon developing transferable concepts and generalizations which can be used when studying other places. However, the area studies were also chosen because they dealt with important parts of the world--countries which pupils need to know about if they are to understand the modern world and analyze the problems facing our country in world affairs. Therefore, pupils are expected to learn many important ideas about each of the areas chosen. These ideas are listed in the outline of content, however, rather than in the list of objectives which focuses upon transferable generalizations.

The units are organized so that they can be taught as problem-centered units. Each unit begins with an introduction which attempts to help pupils understand the importance of the area and some of the policy conflicts or problems faced by the United States in dealing with the area. Pupils suggest or look briefly at policy alternatives and then study each area in some depth in order to gain the background needed to help them make tentative choices about foreign policy alternatives. Each unit includes some geographic study, an examination of historical developments which are important to understanding the area, and a study of the political, economic, and social systems in the area today. The last part of each unit focuses upon the relations of the area with other parts of the world and particularly with the United States. Pupils return to an analysis of policy alternatives facing the United States in its relations with the area.

The course emphasizes cultural values which give unity to the social system in any age and upon cultural change and continuity. In each of the area studies the historical section includes a look at the total culture of the people in some past period prior to important changes. Pupils then look at some of the changes in a semi-chronological or a topical manner and then examine the total culture once more after these changes have taken place and prior to another important change. For example, pupils look at the total culture of Russia in the early 1800's, then examine some of the important changes of the 19th century, and look at the culture once more prior to the revolutions of the 20th century. When they study China, they look at China around 1700 prior to the period of western imperialism. They then examine western imperialism and developments which led to the rise of nationalism. They look at China in more detail again prior to the Communist Revolution in the 1940's. A similar type of approach is used in the other area studies. This organization, which is borrowed from Ethel Ewing's area study approach, should help pupils understand the integration of culture and factors promoting cultural change or persistence of culture traits.

Although each of the units follows somewhat the same pattern of organization, there are important variations. For example, the approach to the study of geography in each area differs somewhat. In the unit on Western Europe, this section focuses upon regionalization and criteria which might be used in separating Western Europe from other parts of the world as well as in regionalizing Western Europe itself. However, the section also reviews and develops further a number of transferable generalizations which are applied in the later units.

The section on geography in the U.S.S.R. begins by having pupils study a physical map and set up hypotheses about other physical features and human activities in the U.S.S.R. They check these hypotheses against other maps and data, develop new hypotheses about other features, and check those against various kinds of data. In this process, pupils apply many of the concepts, generalizations, and skills developed in earlier grades and in unit one.

The geography section of the unit on China also calls for having pupils apply previous knowledge in setting up hypotheses about China. This time, however, they begin with a different kind of map pattern and spend more time dealing with population problems.

In the unit on India, pupils learn in the introduction about the low living levels and compare the levels of living in India with those in China. They are then asked to do independent study to try to decide whether or not India has the geographic potential for as rapid economic growth as does China. Each unit emphasizes the idea that man uses his environment in terms of his cultural values, perceptions, and level of technology.

In the geographic section and in each of the other sections of the area units, pupils apply and test generalizations as they study each new area of the world.

General Outline of the Course

The course includes the following units:

Unit 1--Western Europe (approximately 12 weeks)

Western Europe is taught as an area study, not in chronological fashion as in many area study programs. It was selected for study because of its importance to the United States and to the world as a whole. Ordinarily, it should be taught at the beginning of the year, since a number of developments in other parts of the world are related to it in the other units. However, a teacher could shift the order of the units and begin with a different one if it were prominent in the world news because of some crisis situation. Moreover, it might be wise to begin with the U.S.S.R. the first year in which someone teaches an area study after having taught world history in the past. It is easier to adjust to an area study approach to content if one begins by teaching an area not treated chronologically in the past.

Not all of Western Europe can be studied in detail in one area study. Therefore, the focus is upon Britain, France, and Germany, although other parts of Western Europe are introduced at various points in the unit. The teacher is referred to the introduction to the history sub-unit for an analysis of the chief features of the organization of that section of the unit. The sub-unit dealing with the social, political, and economic systems of the three countries calls for much comparison among them and uses ideal types to help pupils make such comparisons.

The last part of the unit on foreign relations looks at attempts to bring about closer economic and political relationships among the countries of Western Europe. This is the place in the curriculum when pupils study concepts needed to understand international trade. Pupils also examine the problems raised for the United States in some of these developments as well as other policy conflicts facing this country in relationship to Western Europe.

Unit 2--The U.S.S.R. (approximately 11 or 12 weeks)

The U.S.S.R. was chosen because of its importance in the world and because it was the first great communist power. The section on geography helps develop some idea of the potential of the area for industrial and agricultural growth.

The section on history helps pupils understand aspects of cultural continuity between Tsarist Russia and the Soviet Union. This section includes a fairly lengthy section on Marxian ideas which could have been developed when studying the history of Western Europe but which seem to fit more naturally into this area study.

The political, economic, and social systems are studied in one sub-unit in order to help pupils understand the relationships among them and the extent to which the government influences all aspects of life. Pupils should understand that the system is not static and that to label countries totalitarian or democratic really involves the use of ideal types, similar to the ideal types used for social systems in unit one and economic systems in earlier grades. They should try to decide where they would place the U.S.S.R. and the U.S. today in terms of a continuum from democracy to totalitarianism.

The last sub-unit on foreign policy treats the relations of the U.S.S.R. with other countries and introduces its split with the Chinese Communists. Pupils try to analyze alternative courses of action for U.S. foreign policy in terms of what they have learned about the Soviet Union.

Unit 3--China (approximately 7 or 8 weeks)

China was chosen because of its importance in world affairs, because it is the second most important communist country in the world--and perhaps the more dangerous one to world peace, and because it represents an important Asiatic culture. Pupils are able to compare the different policies followed by communists in China and in the Soviet Union. They also can examine our policies toward China in the light of the split between these two communist powers and the knowledge they have gained about China as a whole.

At the end of their study of the social, political, and economic systems in China, pupils should compare China with the U.S.S.R. and with other countries they have studied so far. They might try to place China on one continuum showing political systems, another showing social systems, and another showing economic systems as they make these comparisons.

Unit 4--India (approximately 4½ weeks)

India was chosen both because it is an important country in the world and in Asia. It illustrates a large country which began its independence at just about the same levels of living as those found in China when China turned communist. It is faced with similar kinds of population pressures and social and economic problems, but is trying to solve these problems through democratic means and a mixed market-command economy. Pupils should make comparisons between India and China and also between India and Western Europe in terms of the economic, political and social systems.

The unit on India is . used as a vehicle to develop a number of anthropological concepts related to the cultural problems of introducing technological change into a society. The unit also calls for testing a theory of economic growth studied in the tenth grade course on American history as well as a theory about which factors lead to revolutionary and to reform movements.

Culminating Section (approximately one-half week)

At the end of the year pupils should compare the different areas of the world in more detail and should examine and refine generalizations which they developed in the early units.

GRADE TWELVE: VALUE CONFLICTS AND POLICY DECISIONS

The Focus of the Course

In essence, this course focuses upon problems facing the U.S. at home and abroad. Each problem involves value conflicts and policy decisions. This course builds upon what pupils have learned earlier. They should not need to spend much time developing many new concepts and generalizations, although of course some new ones are introduced and many are tested further against new data. Moreover, pupils should know something about the kinds of questions asked by those in each discipline and the methods used by each to advance knowledge in the field. Students should be able to use what they have learned to grapple with a series of domestic and international problems facing American democracy and, in the last unit, the students as individuals.

In each of the units pupils identify and examine value conflicts related to issues. They learn that they should select courses of action only after studying causes of problems and the probable consequences of different courses of action. Such study involves the use of social science data, concepts, and generalizations in an attempt to find out which policy alternative will be most likely to achieve the values or goals desired.

The topics for units have been chosen in part to provide for comparative study of certain problems. For example, pupils study problems of economic growth both at home and abroad. They focus upon the issue of security-freedom at home and in African countries South of the Sahara. They study race problems at home and again in the African countries. Such comparisons should help pupils understand policy issues at home more clearly than would be possible if they focused only upon internal examples of them.

The last unit is described in more detail below under the outline for the course. It permits pupils to summarize the role of the social sciences in helping people select courses of action which involve value judgements. Other purposes of the unit are described under the unit title.

General Outline of the Course

Unit 1--How Can We Preserve Our Security Without Sacrificing Essential Freedoms?

This unit focuses upon a problem which is probably the most important, continuing political issue facing any country. This unit poses a series of questions for pupil investigation: To what degree do radical groups of the left and right provide a threat to American security? More specifically, to what extent has and does the Communist Party in this country provide a threat? To what extent do the new far left groups pose a threat? To what extent do the groups of the far right pose a threat? The class studies current examples of the security-freedom issue as it relates to draft protests, college demonstrations, etc. as well as some of the older examples.

The unit then turns to an examination of the role of civil liberties in a democracy. This section can be treated briefly if pupils have come through the eighth grade course and other senior high courses in the Center's curriculum. However, time should be spent in examining the basic relationship between civil liberties and a democratic society.

Finally, pupils turn to a study of alternative courses of action which have been tried or proposed or which pupils suggest to try to safeguard security. They examine each in terms of the value conflicts involved, the probable or past effectiveness of each in helping achieve its aim of promoting security, and the probable or past effects of such a course of action upon civil liberties. Pupils are then asked, with no attempt to reach class consensus, to try to decide what program each would advocate for the United States.

Unit 2--Economic Growth in the United States: How Can We Promote Growth?

This unit should be treated only briefly if pupils have come through the earlier courses in the Center's curricular program, since it has been dealt with at some length in the tenth grade American history course and in the area studies in the eleventh grade. The unit helps pupils summarize factors promoting or hampering economic growth and then focuses upon issues related to how such growth might be promoted in this country. Some of the issues relate, for example, to the value conflicts involved in using government fiscal and monetary policies to promote growth as well as economic stability (studied in the tenth grade). To analyze alternative courses of action, pupils are forced to analyze factual questions and to use economic concepts and generalizations in considering the consequences of different courses of action. The unit provides a good introduction to unit three.

If pupils have not come through the tenth and eleventh grade courses, this unit will need to be expanded somewhat as suggested in the resource unit.

Unit 3--Problems of the Underdeveloped Countries

Although pupils have studied other underdeveloped countries (the Middle East in grade eight or nine and China and India in grade eleven), this unit gives them a chance to focus upon the problems of underdeveloped countries around the world in more detail, to understand the relationship of these problems to foreign policy issues facing the United States, to study in more detail causes of the problems and the difficulties of introducing technological change, and to consider policy alternatives facing not only the underdeveloped countries themselves but also the United States as we debate foreign aid and trade issues. These alternatives involve a series of value conflicts as well as non-normative questions related to the probable consequences of different courses of action.

This unit also gives students a chance to learn more about certain important areas of the world which they did not study in grade eleven or in the junior high school. For example, it is suggested that many of the pupils focus upon some of the underdeveloped countries of Latin America. In their study they will have to consider some of the political questions involved in these countries. This study supplements the geographical study of Latin America in grade five. Other pupils will investigate and report on some of the underdeveloped countries in Southeast Asia or northern Africa which have not been studied earlier. A few pupils may study other underdeveloped countries, although it is recommended that the class focus upon these parts of the world.

This unit draws heavily upon economics, anthropology, and to some extent upon geography. Moreover, pupils cannot avoid examining the historical background of problems nor the political and social systems which either contribute to the problems or affect the feasibility of different alternative courses of action and U.S. policies of aid and trade.

Unit 4--Africa South of the Sahara

This unit is taught for three major reasons. First, it is an area not studied in detail earlier but of extreme importance to the world and to the United States for a number of reasons. These include both its relationship to the cold-war struggle and its historical and cultural importance for American Negroes and so for all Americans. Second, the unit provides a useful foil for study of two of the domestic problems dealt with in the course, namely race conflict and the issue of security-freedom. Third, Africa provides useful data for testing a number of generalizations learned earlier to find out if they are culture-bound. For example, pupils may have generalized in previous courses about the importance of two political parties for a democracy. Does this generalization hold true in Africa with its different cultural traditions? Pupils will have generalized in earlier courses about factors making for political stability. Do these generalizations help them understand the political problems facing the African countries or are they culture-bound? In earlier grades, pupils probably have developed certain ideas about the need for governmental institutions to change laws or about the factors giving people a sense of oneness. To what extent do these generalizations hold true when examined in relationship to the African tribal groups? Pupils will have generalized about factors related to underdevelopment in the previous unit. Do these generalizations hold up when tested against the situation in Africa?

This unit omits the study of north African states, since these are treated briefly in the unit on the Middle East in grade eight or nine, and since culturally, these countries differ from those south of the Sahara. It would be possible to include them if pupils have not studied the earlier course.

Like the area studies used in the eleventh grade, this unit draws upon all of the social sciences. The introduction attempts to develop ideas about the importance of the area to the world and to the United States and raises issues about American foreign policy in this area. A study of the geography of Africa provides help in analyzing the economic potential of the countries and many of the problems facing them. A study of the history of the area should help pupils understand the rise of nationalism and many of the problems facing the countries today and the U.S. in its relations with these countries. It should also contribute to the development of an appreciation for the cultural developments of the peoples of Africa. It is important, for example, for pupils to examine and compare African civilizations with those in Europe during the period of the Middle Ages. The unit includes an examination of the political, social, and economic problems and systems of three different kinds of countries: independent states dominated by Africans, independent states dominated by white people, and colonies. Finally, pupils turn to an analysis of attempts to obtain more cooperation among the African states, to relations of these countries with non-African countries, and to policy issues and alternatives facing the United States. Pupils analyze these issues both in terms of value conflicts and in terms of factual questions about the probable consequences of following alternative courses of action.

Unit 5--Racial Conflict in the United States: What Should Be Done?

This unit deals with the value conflicts involved in current racial conflict in the United States. It builds upon much that has been taught in earlier grades about minority groups. This early treatment is summarized for the teacher in the introduction to the unit. The unit also helps pupils find out what has happened in race relations in the years since they studied discrimination in some detail. Pupils study theories about causes of prejudice and discrimination as an aid in helping them try to decide what courses of action should be followed. They also analyze in some detail the civil rights movements.

Unit 6--War and Peace

This unit deals with the costs of war, with people's attitudes toward war, and with causes of war. Pupils then look at the international system and the means which are used to try to resolve international conflicts, including the use of international agencies. Finally, the unit focuses upon contemporary foreign policy issues in the United States as this country tries to preserve peace though power. Pupils study the pros and cons of current policies and proposals for change. Viet Nam is suggested as a case study for use in examining current issues.

Pupils draw upon what they have learned about foreign relations and the international system in area studies in earlier grades, in the eighth grade executive unit, and in the earlier twelfth grade units on Africa and on The Underdeveloped Countries.

Unit 7--What Is the Good Life?

This unit raises the questions: What is the good man? What is the good life? What is the good society? The unit is designed to help pupils understand that the social sciences can help them find out how different peoples or societies view these questions or the alternative consequences of following different courses, but cannot provide the answers to normative questions.

The unit raises questions of ethics and relates ethics to some of the current problems facing young Americans, including controversies related to their involvement in the war effort. The unit uses a wide reading program with books on utopias and mock or negative utopias, books about people who seem to have led unhappy lives, regardless of their material well-being, books about those who have worked with maladjusted children, books about obviously happy people and people who have committed their lives to working for others. The class discusses how the authors view the basic questions raised by the unit, they try to decide whether or not they agree and they try to identify the major characteristics of those who seemed to be leading a good life and of those who seemed to be leading unhappy lives.

Pupils also draw upon empirical studies of the effects of maternal deprivation on young children, studies by psychologists and anthropologists about basic drives and motivations among men, and upon the writings of psychiatrists as they try to analyze the questions raised in the unit. For example, they spend some time looking at a study of alienation of college youth, the causes of this alienation, and the effects of the alienation upon the youths.

The class [illegible] considers questions of commitment and involvement in modern society, using cases in which Americans have ignored pleas for help from fellow Americans.

The unit also calls for an examination of changing values and patterns in American life, raises questions about whether or not we are a mass society, and examines the effects of our society upon human beings. The unit suggests a number of directions in which pupils can take off in a study of psychological and social problems which they consider related to the basic questions raised by the unit. The focus of this unit, then, is upon the present and upon questions which face young Americans today.

Part Two: An Analysis of the Curriculum Design

Major Decisions Affecting the Selection and Organization of Content

Some of the staff's decisions which affected the curriculum design and curriculum materials have been identified in chapter one. This section deals with other major decisions reached as the result of working on the tasks described in chapter two.

1. The Social Sciences as Sources for the Curriculum

The point of view of the staff toward the social science disciplines and their use as sources for a social studies curriculum are outlined in some detail in Background Paper No. 2 on "The Social Science Disciplines." A few of the staff's major conclusions are summarized here in order to clarify some of the features of the curriculum developed by the Center.

(1) Disciplines are constantly changing; knowledge is not fixed. Disciplines change as new information is added to the body of knowledge, as new concepts are developed or borrowed to direct attention to different data, as new theories are developed to guide research and to organize and explain phenomena, and as new techniques are developed or borrowed to make possible better controlled observations and analysis of data or even the collection of data which was formerly thought beyond the power of a discipline to study. Structures for disciplines are developed by the practitioners of the discipline to help them make sense out of the real world; the structures change as the practitioners engage in further study and see new ways of organizing data. A major feature of any social studies program, therefore, should emphasize this changing nature of knowledge in the social sciences as well as inquiry techniques for gaining new knowledge in the different fields.

(2) There are other reasons for teaching these methods of inquiry. They are examined in the background paper on "The Social Science Disciplines" as follows:

> Including content dealing with the methods of inquiry in the social sciences should help develop both skills and attitudes. Pupils need to understand the problems facing the social scientist and the limitations of different techniques if they are to make realistic interpretations of social science data and de-

velop a sceptical attitude toward the finality of conclusions. It is equally important to teach them that the social sciences are not based upon sheer guesswork or opinion. A lack of awareness of the empirical methods used gives people the idea that their guesses are as good as any conclusions of social scientists. Pupils need to learn that guesses and hypotheses have value, but that unverified guesses are not so good as tested theories. The general low repute of the social sciences may be due in part to misconceptions about their methods of inquiry. Greater familiarity with them should make pupils aware of the valuable role of the social sciences in the modern world. Pupils who study and use these techniques should come to accept, at least to some degree, those values which are essential to the scientific endeavor.

(3) No attempt should be made to set up a structure of concepts and generalizations for any of the fields which would attempt to be all-inclusive or which would be grouped around only three or four major concepts, ideas, or analytical questions. The present stage of the social science disciplines does not permit such a "closed" structure. One of the major developments in the social sciences in the last decades has been the search for new theories which will explain the data for the entire field studied in the discipline. This search has led to the development of a number of competing theories and ways of structuring knowledge within each discipline. Theoretical disagreements among the practitioners in one field are frequently heated. Political science serves as a case in point. In Background Paper # 8 Professor Frank Sorauf examines conflicting theories in political science. Here it is enough to point out that there is no "over-arching" theory which relates all aspects of the field of political science. Nor does any one theory--incomplete as it may be--dominate the field of political science. Indeed, as Sorauf points out, there are four major competing theories at present. Each attempts to identify major variables and relationships which one should keep in mind in examining political events. No one includes all important variables, and no one has the kind of predictive value which some theories in the natural sciences have.

This lack of agreement upon one structure, this lack of a theory which can relate all topics studied by political scientists, the impossibility of any final, fixed structure does not mean that one should pay no attention to structure as he studies political data. Political scientists can identify certain concepts which provide useful tools of analysis in any attempt to make sense out of political data. They can identify generalizations and middle-range theories which help explain the operations of the political system. Although there is no agreement among political scientists upon any final or all-inclusive list of essential variables, or key concepts, there is general agreement that certain concepts are important. Indeed, some of them are found in each of the theoretical structures. The current search for over-all theories in the field of political science and the development of competing theories has tended to highlight disagreements among political scientists and to play down the points upon which political scientists agree. Nevertheless, there are probably more points of agreement than disagreement among most practitioners in the field today.

Thus this Center's staff has not attempted to limit the goals for teaching political science concepts to only three or four analytical concepts or questions. Rather, the list of concepts and generalizations selected should be thought of as open--as including important concepts and generalizations to which others might be added. The list may even include concepts which some political scientists might consider less essential than others which could be put on the list. However, as Professor Sorauf points out in his background paper: "Taken at the general level of tool, concept, and mode of organization, there is no reason why the conflict resolution, power-influence, and decision-making systems cannot be brought together.... the concepts and foci...have no incompatibility taken as concepts and foci rather than as total political theories."

What is true of political science is also true of the other social sciences. There is no one structure for any of them, and structures change as practitioners in the field pursue their investigations. History, moreover, lacks a structure in the same sense that the other fields possess one. Its analytical concepts are borrowed from the other fields. What structure of knowledge it possesses is related more to periodization than to relationships between concepts, generalizations and theories.

If this Center had been developing a new social studies curriculum for only three or four grade levels, the staff would have been more concerned about limiting the total number of concepts and generalizations to be taught in the courses to be developed. However, the Center was developing a thirteen-year program. To limit the goal to teaching only three or four analytical concepts or questions from each discipline placed greater limits on the total social studies program than the staff thought wise.

(4) Since most of the individual disciplines lack a theoretical framework to unify all of the phenomena within their own fields, no overall arching theory can be developed at present to unite all of the disciplines, even though many people hope that such a theory can be developed in the future. On the other hand, the social sciences lack clear-cut boundaries marking off one discipline from another. Although they tend to study different kinds of social data or at least to ask different types of questions about the phenomena studied, social scientists from the different disciplines have much in common both because they all study social data and because of the methods of inquiry which they use. Their joint concern about social data, their common methods of inquiry and the ways in which their different approaches to the study of phenomena and their diferent methods of explanation complement each other in any attempt to study broad societal problems or trends, provide sound grounds for grouping the social sciences within one broad field of study within the school curriculum and providing some interdisciplinary courses, even though at other times it may be desirable to separate the disciplines in different courses.

For other reasons, too, it is not necessary to have pupils study the different disciplines separately all of the time or always according to the logical organization used by the social scientist. Some of these reasons are presented in Background Paper # 2. Most of them relate to the maturity level of pupils and to learning theory. The Center's staff concluded that:

> It is probable that pupils should study materials from the disciplines in a variety of ways. It may well be that they should study some topics through an integrated approach without even attempting to distinguish the different disciplines; such an approach might focus upon common concepts. At other places in the curriculum, pupils may need to study different disciplines in a more orderly fashion. Disciplines such as history and geography may also be used as vehicles to teach many concepts and test generalizations from the other social sciences. Finally, pupils might profit from the experience of using the various disciplines in studying social problems which cut across

fields. They might well analyze a problem, for example, in the light of the kinds of questions asked and the concepts and generalizations used in each of the disciplines. By combining different appraoches to the disciplines, a curriculum should develop readiness for a more logical study of a field, obtain the advantages accruing from knowledge of structure in a field and its methods of inquiry, and teach pupils to transfer skills and ideas learned from a discipline to problems which require an interdisciplinary attack.

2. The Good Society and The Good Citizen in a Democracy

Staff members' views about the good life and the good society are relevant to their views about the role of the school in a democractic society. They view the good society as one which promotes human dignity, freedom of choice, and the well-being of individuals in the society. Such a society helps people achieve a sense of self-worth and a commitment to some kind of value system which makes life seem worthwhile. Since human beings differ, such a society must cherish diversity, not uniformity, while still providing enough common ground to hold the society together. It must strike a balance between the rights of individuals to make free choices in their own interests and their rights to make choices which will affect adversely similar rights of other members of the society. It must promote social sensitivity to the needs of others. A society which values diversity and free choice will inevitably have differences arising over conflicting goals and interests. The good society will be committed to processes of resolving such conflicts short of the force and violence which disrupts societies and human lives. Since the good society is one which promotes human welfare, it is also one in which people who are living in a rapidly changing world must be willing to make changes in institutions as old institutions no longer meet the needs of members of that society. However, the good society is one in which people make choices on a rational basis as well as in terms of their values, thus increasing their prospects for achieving goals. The good society, then, must be thought of as dynamic rather than static. It is always in the process of becoming--of evolving in the light of changes in the world and changing human goals to meet the changing needs of its members. It can be no utopia in which all goals are completely achieved once and for all. However, the good society is one in which people are committed to the goal of human dignity and welfare and work toward that end.

These views of the good society indicate an obvious commitment to a democratic society and are related to the way in which staff members define good citizenship in a democratic society. As indicated in chapter one, the staff began its work with the assumption that a social studies program should be designed to help achieve the broad goal of citizenship education. The staff does not define good citizenship only in terms of voting or participation in politics and voluntary movements of various kinds. However, although staff members recognize that empirical data from the social sciences do not necessarily support the idea that widespread participation in political activities helps promote a stable democracy, they do take the position that a large number of people need to participate actively in a democratic society. This participation, however, must be based upon careful investigation and rational thought. Those who participate need to be able to think critically and to differentiate between value judgements and inferences as they examine value conflicts. They should be committed to rational thought as a means of understanding social data and solving societal problems, although rational thought is not the only way of looking at the world and human beings and certainly does not preclude making decisions in terms of values or deny the importance of emotions and affective behavior. Since so many of society's problems lie in the areas studied by social scientists, the good citizen attempts to develop some understanding of the social sciences and tries to keep abreast of current affairs and problems. He is committed to the free examination of social attitudes and data and values independent thought; he respects evidence even when it contradicts his prejudices and preconceptions.

The good citizen in a democracy values human dignity and human welfare and is committed to the basic ground rules by which a democracy settles disputes which arise among citizens and groups. This commitment to human dignity permeates his relations with other people and groups, not just his choices on issues related to broad societal problems. Since the good citizen is committed to human dignity and welfare, he works for changes in society where he thinks these changes are needed to achieve these broad goals. Although he does not support the status quo because he dislikes change, neither does he equate change with progress. He examines rationally all proposals and events as they relate to basic democratic goals. Though he is a product of his culture, he is not a prisoner of that culture. He knows other cultures and he makes independent choices. He uses the social sciences to help him make rational decisions in his personal relations, in his economic activities, and as he participates in political affairs.

3. The Role of the School in a Democratic Society

Although schools are established by a society to help transmit the cultural heritage, no school could transmit all of the existing heritage, nor should it. Racism is a part of the cultural heritage in the United States but hardly a part which a school in a democratic society should transmit. The transmission of the cultural heritage must be selective in terms of an analysis of the significance of different values in a democratic society, in terms of beliefs about what knowledge is and how one knows, and in terms of an analysis of society and the needs of citizens in that society.

Values and the Social Studies Program

Given the beliefs which staff members held about the good society, democracy, citizenship education, and the characteristics of good citizens in a democracy, considerable staff attention to the role of the social studies program in developing values was inevitable. However, curriculum developers in a democracy face a far greater dilemma as they consider establishing value goals for schools than do those in other societies, since democratic beliefs as well as scholarly values make some ways of developing values untenable. In spite of the values which the staff members held, therefore, some of the most controversial discussions they had related to this question. Some of the questions which staff members considered have been presented in some detail in Background Paper # 11 which examines "The Role of the Social Studies in Developing Values." Some of the major conclusions about values are summarized here to clarify the relationship of these conclusions to the goals identified for the program and so to the curricular design.

(1) Since curriculum builders are a product of their culture, they probably cannot avoid letting their values affect the curriculum, even if they so desired. It is important, therefore, for curriculum builders to make their values explicit so that they know what they are doing and can do a better job of achieving their goals, and so that those interested in the possible use of the program can come to a more intelligent decision about whether or not they would like to use it.

(2) Social scientists are influenced in their behavior as scientists chiefly by the so-called scholarly values which affect their method of inquiry and research design, but also by other values which influence both the topics chosen for study and the restrictions which these social

scientists place upon possible experiments and techniques to gain knowledge.

Two conclusions follow:

(a) Regardless of any position the staff might take on the role of the school in teaching other values or on the importance of scholarly values to citizenship education, any attempt to teach social studies must include the teaching of scholarly values if it is to help pupils understand the social sciences and use them intelligently.

(b) The selection of topics for study in part on the basis of values identified as goals for the curriculum is not inconsistent with a sound social science program.

(3) The values and attitudes of social scientists are affected at least in part by their study of their fields. For example, their attitudes toward change, their scepticism of either the finality of knowledge or of single-factor causation in the social sciences and so of panaceas or simplistic solutions for social problems, and probably their attitudes toward cultural diversity or plurality and toward other races and peoples are all affected to some extent by their scholarly studies. Although there is considerable disagreement about whether or not content studied does affect attitudes and values, some evidence exists to suggest that content can affect attitudes under certain circumstances, to a certain degree, with at least some people. It is worthwhile, therefore, to include some content in the curriculum which will expose pupils to the kinds of experiences which may help develop some of the attitudes identified as goals.

(4) Any society is doomed to internal disorder and chaos unless there is general acceptance of some basic values. In a democracy, these values include values related to human dignity and rights and also the process values related to the ground rules for the operation of a democratic form of government--processes and rules to be followed in resolving conflicts which are bound to arise in any society aimed at promoting free choice for all. It follows that the role of the school in a democracy includes the responsibility for helping to transmit these basic values as part of its role in transmitting the cultural heritage.

(5) Most of the scholarly values of the social scientists are similar to some of the process values needed for resolving conflict in a democratic society. Both demand a commitment to the free examination of social attitudes and data and support for independent thought and the expression of different points of view and interpretations. Both demand rational thought, respect for evidence, and objectivity in interpreting evidence in an effort to help predict possible consequences of following certain value positions. Both require critical evaluation of sources of information. Consequently, the goal of developing the scholarly values, needed for a sound social science education, is consistent with and should promote the development of basic process values needed in a democratic society.

(6) The means used to develop these basic values of a democratic society and the scholarly values should not be inconsistent with the values themselves. They should not involve indoctrination without critical examination of the values by pupils.

(7) The means used to develop values should be affected by findings from educational psychology and sociology about how attitudes can be changed and at what ages attitudes can best be changed.

(8) Although the school has the right and duty to attempt to develop certain basic values inherent in a democratic system, it does not have the right to inculcate particular viewpoints about specific public policies. To do so would be inconsistent with the democratic ideology.

(9) An acceptance of a democratic philosphy leads to an acceptance of the belief that the school has certain roles in addition to the transmission of the cultural heritage.

    (a) The school can be used as a means of providing individuals with equal opportunities to develop their talents. This task involves the development of a sense of self-worth which is as important as certain skills and motivations if individuals are to take advantage of schooling or later opportunities.

    (b) Schools should help pupils achieve the emotional health and value commitments needed for living a good life. Sociologists and psychologists seem to agree that those people who have become alienated from the values of their culture and who have not developed a pattern of values by which they guide their lives tend to be unhappy people. Without consistent value patterns, the individual develops a "sense of aimlessness" and of "great anxiety." Studies have also shown that anomic individuals are much less likely than those who accept major group values and feel that life is worth while to participate in political affairs. If they do participate, they are more likely to become involved in extremist or totalitarian political movements. The goal of helping pupils develop feelings of self-worth and a commitment to values is important, then, both to helping the individual achieve the good life--a basic value in democracy--and for developing a citizenry which will work to support democratic values. It is important for both purposes to have pupils examine their values, to have them raise their values to a level of conscious rather than unthinking attachment, and to help them develop a consistent value pattern.

(10) Any examination of values should involve a consideration of the probable consequences of taking actions based upon certain value positions. In this consideration and in the analysis of causes of conflicts and societal problems, the social sciences have much to contribute even though value judgements in the long run cannot be supported by an appeal to proof.

(11) Since the school is a social organization, it cannot achieve its goals efficiently unless it attempts to develop certain values required for the efficient operation of a social organization which is set up to achieve particular purposes. A school cannot operate effectively, for example, if it fails to develop some attitudinal behaviors related to motivation to do a good job, punctuality, cooperation, tolerance of others, honesty, a respect for school property, and respect for the property of others.

These value positions on the place of values in a social studies curriculum have affected the curricular design and materials developed by the Minnesota Curriculum Center in a variety of ways. Not all can be pointed out in this final report, but a few should illustrate the importance of attitudinal goals in the work of the Center.

First, the staff has selected some topics for study in terms of the attitudinal goals identified for the program. For example, it has chosen to teach about many different cultures very early in the curriculum and at many different levels in the hope of developing an acceptance of diversity as well as an intellectual understanding of the psychic unity of mankind. Both should help promote the development of a value for human dignity and the desired attitudes toward people of other races, nationalities, and religions. Or, to take another example, the staff has chosen to have pupils study civil liberties cases as they analyze the judicial process. Other kinds of cases could be used, but it was thought important to give pupils experiences with analyzing some of the value conflicts involved in such cases and in seeing in a concrete way the effects of limiting civil liberties. There has also been considerable emphasis at other grade levels on the study of the impact upon human beings when civil liberties are restricted.

Second, the staff has provided many learning experiences in the curriculum in which pupils are asked to identify value conflicts and use inquiry to help them make policy decisions in terms of the probable consequences of different courses of action. In some cases, the curriculum provides entire units organized around such problem-solving issues. In other cases, opportunities for pupils to analyze these value conflicts and policy decisions are built into other units as in the case of labor-management conflicts in one of the tenth grade American history units, or value conflicts related to materialism as opposed to other goals in the unit on "The Good Life."

Third, an effort has been made to select topics which give pupils an opportunity to examine and clarify their own values and to study topics related to personal-social relationships which are of immediate concern to them at particular levels of maturation.

Fourth, the desire to develop scholarly values has affected the processes taught pupils, not just the content, concepts, and generalizations taught. For example, much time is spent on many different occasions in helping pupils develop skills involved in evaluating sources of information.

Fifth, scholarly values have affected the selection of teaching strategies and media.

Knowledge and Skills in the Social Studies Program

The Center's staff members believe that there may be several complementary ways of knowing but that empiricism and rational thought provide the most appropriate ways of knowing about social behavior. Empiricism demands a willingness to change one's views as improved research techniques and continued research turn up limitations in old knowledge. Knowledge is not fixed; indeed, it includes knowledge about what one does not know and the questions which need asking as well as a structure of organized knowledge which will change as men use empirical methods and reason to find out more about human behavior. Consequently, it is important to teach processes of inquiry as well as scholarly values such as scepticism of the finality of knowledge and conventional truths and a commitment to the free examination of social attitudes and data.

Transmittal of the cultural heritage should be selective in the area of knowledge and skills, just as it is in the area of values. The selection should be made in terms of significance for helping pupils understand and cope with the world in which they live and with change in that world. It follows, too, that curriculum must change as changes occur in knowledge and society.

Since concepts and the generalizations about them are tools of inquiry, transferable concepts and generalizations have an important place in a curriculum designed to teach the most important aspects of the cultural heritage. Pupils should learn, however, that concepts are constructs whose validity depends upon their usefulness in answering the questions which men wish to raise. They should also learn the tentative nature of all generalizations and theories.

This is not to say that schools should not teach some knowledge other than concepts and generalizations which have transfer value. Transferable concepts and generalizations can be taught through the vehicle of content related to problems and topics of significance in the modern world. Pupils can use inquiry methods and can apply concepts and generalizations to the task of identifying singular propositions or so-called singular generalizations about places, trends, or problems which are significant at the moment and which appear likely to be of continuing significance for some time to come. It is useful, for example, for pupils to develop singular propositions or generalizations about the Soviet Union or minority group relations even though some of the propositions learned apply to only one topic and not to others which may be studied. It is the significance of the topic studied which determines how important it is for pupils to develop singular propositions about it.

This view of the role of the school in transmitting knowledge and skills from the cultural heritage has affected the curriculum developed by the Center in a number of ways. Some of these have been identified earlier in the discussion of the social sciences. This view suggests a heavy emphasis upon teaching inquiry skills, an emphasis described in more detail in the next section of this chapter. The goals for the social studies program in the area of knowledge have been stated in terms of concepts and generalizations which have transfer value for analyzing new data. Resource units identify such objectives. However, the outline of content for each unit also includes a number of important ideas or singular propositions about the topic which provides the focus for study. These ideas are also worth knowing at this time, even though they are not so important as transferable concepts and generalizations and even though pupils should recognize the transient nature of such knowledge in the light of rapid changes in the world around them.

Despite its emphasis upon teaching skills of inquiry, the staff did not feel justified in focusing upon only a few inquiry skills to the neglect of many other skills which have been identified over the years as important to a social studies program. For example, the list of goals identified by the Center includes a number of skills related to a time-sense and a series of important geographic skills. The staff also identified some communication skills which not only need reinforcement even though taught in English classes, but are important to success in social studies classes. Research workers have identified certain specialized reading skills needed to understand social studies material. Useful reports in the social studies also require the consideration of particular types of organization suited to the type of explanation used in each of the social sciences. Consequently, staff members have included a number of skills as goals of this curriculum. Indeed, the emphasis upon a broad range of skills distinguishes this curriculum from some of the other funded curriculum projects. An emphasis upon only a few skills may be appropriate for those developing a curriculum for only one or several courses. It seemed most inappropriate for a curriculum development center concerned with the entire K-12 program.

Attention to Pupils' Needs

It should be clear from the discussion of the staff's position on values, that the staff viewed part of the task of a school in a democratic society as that of helping pupils meet some of their immediate needs as well as to prepare them for future needs as citizens in a democracy. Although the staff believes that such needs may be met better by the way in which a teacher works with pupils, by the atmosphere developed in a classroom, and by non-class activities within a school, the staff does believe that some topics may have particular relevance to pupils' concerns at certain maturation levels and that study of such topics may prove helpful to them. Some of these topics should be included in the curriculum.

4. Teaching Strategies and Inquiry as Related to the Goals of the Program

Considerable confusion exists in the educational literature over the use of the term "inquiry." It is important to distinguish between inquiry as a teaching strategy and inquiry as a process of achieving new knowledge. The Center's staff has proceeded on the value judgement that it is important to teach pupils to use inquiry methods. Staff members believe that citizens in a democracy need to be skilled in processes of inquiry both as they relate to developing and testing non-normative ideas and as they can be used to help make decisions about courses of action in which policy decisions involve value judgements.

A second question relates to the appropriateness of different teaching strategies to help pupils learn inquiry methods and to achieve the other goals identified for the social studies program, such as attitudinal behaviors, skills other than those most directly related to the inquiry process, and the development of important concepts and generalizations which are transferable and useful in analyzing new data. Research related to the psychology of learning is still needed in order to answer such questions. There was an even greater paucity of research data on inquiry strategies at the time this Center began its work. After examining research findings and considering disputes among learning theorists, staff members adopted the working assumption that inquiry as a teaching strategy would be more likely than other strategies to motivate interest in the social studies, develop meaningful learning of concepts and generalizations, and teach the thinking processes involved in inquiry methods of gaining knowledge.

Staff members did not consider the evidence for this assumption conclusive and still do not consider it so. However, they believed that the possibilities for an inquiry approach justified developing a curriculum which would emphasize inquiry as a teaching strategy as well as inquiry as a goal of instruction. Further research could then be conducted in terms of the degree to which such a curriculum is successful in achieving different goals as compared to one which depends more heavily upon exposition and associational learning. Therefore, the curriculum developed by the Center emphasizes a teaching strategy which encourages pupils to find out things for themselves, rather than one which emphasizes the uncritical absorption of generalizations, concepts, or values presented ready-made by the teacher or a book.

Both inquiry strategies of teaching and inquiry methods of gaining knowledge involve deductive as well as inductive thinking. Pupils are asked to set up hypotheses. They undoubtedly arrive at hypotheses by drawing upon previously-learned concepts and generalizations. They decide that something they have learned in the past might help them make sense out of this new situation. They cannot be sure, but they think that this might be so. Or they may combine parts of several past generalizations in setting up their hypotheses. This aspect of thinking cannot be called induction. At times, moreover, pupils are asked to deduce consequences from a broad hypothesis. That is, they set up if-then statements which follow logically if the hypothesis is true. (e.g. If lowering the voting age to 18 will not affect the outcome of elections (broad hypothesis), then interviews with people 18 and over in states which permit voting at the age of 18 will show that voters between the ages of 18 and 21 divide their votes for President in the same proportion as do those 21 and over.) Such if-then statements can be used to guide the collection of data. If evidence indicates that the deduced consequence is false, the broader hypothesis from which it was deduced must be rejected. If the evidence supports the deduced consequence, the hypothesis is not proved true, since further investigations may show it to be false. However, each time that new investigations fail to contradict the hypothesis, the more confidence people can place in it. Developing if-then statements from hypotheses involves deduction, not induction. However, inductive thinking is used in generalizing from the data collected. Thus the Center's staff prefers to call the teaching strategy which attempts to involve pupils in an active process of inquiry to find out things for themselves an inquiry strategy rather than inductive teaching.

Although the Center's staff decided very early to emphasize an inquiry strategy, it also decided that other techniques should be used where goals justified such approaches. During the process of developing, trying out, and revising the curriculum, staff members' thinking about inquiry teaching strategies has gone through a process of gradual evolution and clarification. Those courses developed earliest did not include as much emphasis upon inquiry as a teaching strategy as some of those developed later in the project. Moreover, during the process of trying out courses, some staff members began to revise some of the approaches within units, encouraging teachers to try somewhat more of an overall inquiry strategy than originally written into the materials and suggesting ways for them to do so. As materials were revised later, in the light of this tryout, many of them were changed to include more of an emphasis upon inquiry teaching. However, it is also true that some courses underwent a slight toning down of the emphasis upon inquiry approaches which most closely resembled the "discovery" approach described by and illustrated in examples provided by Massialas and Zevin.[1] That the original curriculum materials were uneven in their balance between inquiry and other teaching strategies is easily explainable when it is considered that this Center was developing a curriculum covering thirteen years, had many different people involved in the preparation of materials, and wished to explore differing inquiry approaches. Although the curriculum as a whole has evolved in the direction of more emphasis upon inquiry strategies than originally envisioned, and although more uniformity has been achieved over the years, some of the courses exemplify an overall inquiry strategy much more closely than do others.

Clearly, the staff did not earlier and still does not take the position that all teaching should proceed through inquiry. Some goals may be achieved as well or better and more economically in terms of time through the use of other teaching strategies. One teaching strategy is no more likely to be the most appropriate for all situations than one military strategy for different types of wars or battles. For example, the development of map reading skills such as interpreting symbols might not lend itself to an inquiry approach, although the skill of drawing inferences from a comparison of different map patterns might be taught best by such a strategy. Exposition prior to practice might be as useful or more efficient than an inquiry strategy in teaching pupils to locate information or in teaching them to adjust note-taking to different kinds of oral presentations -- both goals identified by this Center. There is little point, moreover, in having pupils spend time inquiring into the meaning of BC and AD, even though they should learn to interpret the meaning of these symbols as they read. For achieving some goals, then, inquiry may not be the most appropriate strategy to use.

---

[1] Byron G. Massialas and Jack Zevin, Creative Encounters in the Classroom, Teaching and Learning Through Discovery (New York: John Wiley & Sons, Inc., 1967).

Moreover, exposition techniques may be used within an overall strategy which emphasizes inquiry. Some exposition by teachers, by guest speakers, or in books is obviously useful within an overall inquiry approach. For example, pupils need to learn to evaluate sources of information in terms of the bias and competency of authors, completeness of data, and consistency. They need to learn to identify persuasion devices and to distinguish between normative and non-normative statements. They also need to learn to compare accounts by different witnesses to an event in order to ascertain those facts upon which most witnesses agree and those upon which there is complete disagreement or far less certainty. Such goals require that pupils read accounts presenting different points of view--accounts which contain both exposition and persuasion. However, the primary goal of having pupils read these accounts is to have them learn to evaluate information and sources of information. Pupils are engaged in inquiry, since critical evaluation is a part of the inquiry process of gaining new knowledge. The teacher is not telling them which account is less biased or more accurate or which reported facts are highly questionable. Pupils are finding this out for themselves, even though they are examining expository or persuasive materials.

Moreover, the teacher might fit an informal lecture into an overall inquiry strategy of teaching. He might, for example, present data which would be difficult for pupils to find elsewhere. Rather than presenting his own conclusions, he provides the raw data from which pupils generalize for themselves. Or a teacher might present the basic outlines of a current theory in the social sciences--about economic growth or the cause of revolution, for example. Pupils might then collect data to try to test this theory. It would be possible, of course, to have pupils read the original book presenting the theory. However, the author usually presents evidence to support his theory, while the teacher's goal may be to have pupils search for data to test it. Moreover, the book presenting the theory may be too difficult for all but the best students to read; the teacher can present the theory in a simpler fashion. The short-term teaching technique of exposition in this case is included within an overall teaching strategy of inquiry.

To promote understanding of the impact of certain events upon the people involved in them, it is useful to have pupils read novels and autobiographies. Pupils tend to identify with the characters in the book and so to understand their viewpoints better than they would from reading other kinds of materials. Moreover, such books may evoke emotional reactions and so be more likely than other kinds of materials to affect attitudes. If the curriculum developer wishes to affect attitudes about human dignity or human rights or the importance of certain process values in a democracy, he may find that the use of such reading materials may be more effective than others which could be used. However, he is still using an overall inquiry approach; pupils are finding out for themselves about how these events affect people, even though indirectly they are being told the effects through characters in a novel. Thus it is important to distinguish between a broad inquiry strategy in teaching and expository techniques. Exposition may be a part of the larger inquiry approach, but the types of exposition and the way in which the exposition is used would differ considerably in an overall exposition strategy as opposed to an inquiry strategy.

Since the various teaching techniques may be combined in different ways, inquiry strategies may vary considerably from one teacher to the next or from one curriculum design to the next, even though all may claim to be using an inquiry approach to teaching. Moreover, the particular combination of techinques needed for one course, given the subject matter content used and the different goals designed for the course, may differ from the combination which will prove most useful in another course.

Inquiry strategies of teaching differ in another major way, not just in the particular combination of techniques used within the overall strategy. The Minnesota Curriculum Center, for example, differs from some centers and from some other proponents of an inquiry strategy in terms of what the pupils are asked to inquire about. Staff members believe that pupils can learn transferable concepts and generalizations as well as singular propositions about important topics or places which they are studying at the same time that they are learning to use the inquiry process. It is economical of time to have pupils think about matters of significance to them and to society as they learn to use inquiry processes. The Center's staff believes that time should not be spent in having them try to "discover" or solve a puzzle about what some object is, unless in doing so they find out how a social scientist might try to identify a similar object--how an archeologist or an historian might try to identify artifacts or documents, for example. In this case, they should be given the same kinds of clues available to the archaeologist or historian. Staff members believe that pupils should develop their own generalizations through a process of inquiry and should learn to test these generalizations against new data. Pupils are not given a set of key analytical concepts and questions ready-made. They develop most of them through inquiry,just as they then use them as they inquire about social problems, places, historical eras, or other topics. For example, pupils are asked to identify factors which seem to affect political decision-making only after they have tried to identify factors affecting their own decisions. As they read case studies about political decsion-making, they try to find out if similar factors affect political decision-makers and they identify other factors involved. They are not told ahead of time what these factors are or given a list of analytical questions to use in studying decision-making.

The staff also believes that pupils should develop through the process of inquiry some of the criteria used in critical evaluation of materials. Pupils are not told what criteria to use in evaluating sources of information. Rather, curricular materials are developed to help them identify these criteria for themselves.[2]

The emphasis upon an inquiry strategy of teaching, the desire to achieve continuity and sequence in the curriculum, and the emphasis placed upon particular goals, have all contributed to another feature which distinguishes this curriculum from many others. Each course and each unit includes far more stated objectives than most courses or units do in other curricula. These objectives are far more numerous than the staff would recommend if it were not building a K-12 curriculum in which such concepts, generalizations, and skills are reintroduced at many grade levels and in many units within one course. For example, the number of objectives for the 12th grade course seems almost overwhelming at first glance. However, an examination of the charts showing concepts, generalizations, skills, and attitudes makes it clear that almost all of the objectives have been introduced at earlier levels--frequently in a number of courses. At the twelfth grade level, pupils are being asked to apply the concepts, generalizations, and skills as they work with new data, and, if necessary, to limit and revise generalizations learned previously in the light of this new data. The total number of new concepts, generalizations, and skills is very small.

---

[2] A dialogue illustrating this approach to teaching pupils to evaluate sources of information is found in Jean Fair and Fannie R. Shaftel, eds., Effective Thinking in the Social Studies, 37th Yearbook of the National Council for the Social Studies (Washington D.C.: The Council, 1967), pp. 203-212. This dialogue presents a discussion session in one of the seventh grade classes using some of the Minnesota Curriculum Center's materials. Also, see p. 136 of this report.

Even at the primary grade level, however, the teacher will find that many concepts and generalizations are introduced within one unit--even the first unit in the course. Many of these concepts and generalizations are reintroduced throughout the year; moreover, some have been taught in the kindergarten course. The first grade course uses the vehicle of families around the world to teach a number of important concepts related to culture, social organization, and social processes. The goal is to have children generalize tentatively as the result of their study of one family. As they complete other units and particularly at the end of the second grade course, they should be able to generalize more fully because they will have studied a number of families in different cultures. Children will have found it necessary to limit or even discard some of their earlier generalizations in the light of data found about other families. Rather than having teachers try to clinch a few concepts and generalizations in any one unit, they are urged to help children think of all of their generalizations as tentative and open--to be used as hypotheses to be tested against new data as they study other units or other courses.

Each of the teacher's overall guides for a course provides an explanation of this approach and offers suggestions as to how teachers should handle a situation when pupils overgeneralize or arrive at faulty generalizations obviously contradicted by data known to the teacher. The guide suggests criteria by which the teacher should decide when to confront pupils with data immediately in order to induce them to modify or reject their generalizations and when to postpone such confrontation because of content which they will encounter at later times during the year or in later courses.

Indeed, the curriculum has been built so as to stimulate overgeneralizations at some points and to introduce pupils to new data at later points which will force them to revise their earlier generalizations. Although this approach to curricular

3

design runs contrary to the learning theory that material is learned better if errors are reduced and reinforcement of correct responses is immediate, some research findings suggest that other factors may also be important in learning. Moreover, the danger of creating some inhibition to the learning of a particular concept or generalization is one which the staff can accept in order to try to achieve goals which it thinks far more important--those of developing a scepticism of the finality of knowledge, an openness to new ideas, and a willingness to modify old ideas in the light of new evidence. In an era of rapid change both in the social sciences and in the world at large, a rigidity of thinking about knowledge is far more detrimental than the failure to learn specific concepts or generalizations as thoroughly as they might be taught if errors were reduced and reinforcement were immediate. This is particularly true in a field in which concepts and generalizations may be outmoded as social scientists carry on further investigations and as the discrete data about any particular topic which pupils study will become dated by changing events in the world.

5. Criteria for Selecting Topics for Study

The social studies program cannot include all of the scholarly materials which have been organized in each of the social science disciplines, all of the cultural heritage, and all of the topics which pupils find of interest. Some criteria must be established for selecting topics for study. The following questions were developed on the basis of the major decisions which the staff had reached both during the stage of preparing a proposal for a grant and during the early stages of the curriculum development work.

(1) Does a topic lend itself to teaching important concepts in the social sciences, particularly those which cut across fields and which are important analytical tools in examining new data?

(2) Is the topic of significance in the modern world? Is it, for example, related to a persisting societal problem, particularly one involving a major value-conflict in our society? Is it related to a significant trend in the modern world? If the topic is concerned with a place, is this place of importance in the modern interdependent world?

(3) Is the topic of particular interest and concern and so

significant to pupils at certain grade levels because it gives pupils either an opportunity to examine their own values or provides them with help in coping with personal problems of direct concern to them?

(4) Does the topic lend itself well to the development of one or more of the attitudinal behaviors identified as goals by the staff?

(5) Does the topic facilitate the development of specific skills identified as goals of the program, particularly skills related to methods of inquiry?

The staff endeavored to select topics which would meet not just one of these criteria but as many different criteria as possible. However, at times topics of little significance in the modern world were chosen because they could serve as such an excellent vehicle for teaching important concepts, teaching a skill, or helping to develop an attitude. For example, neither the Trobriand Islanders nor the Manus are of great significance in the modern world. However, the Trobriand Islanders provide an excellent vehicle for teaching pupils about a kind of traditional economic system in which reciprocal relationships are more important than either a market or a command system in resolving the basic economic questions which face any society. The Manus, on the other hand, provide an excellent case study to teach children various ideas about culture change through a topic which has proved fascinating to them.

The staff recognized that different curriculum groups might apply the above criteria and come up with a different selection of topics. A number of topics would meet the same criteria. Moreover, the balance to be achieved among topics to meet different criteria, for example, numbers 2 and 3, would be decided differently by different groups of curriculum developers even though each group were to agree that both societal problems and topics of immediate concern to pupils should be included in the curriculum.

Chapter two points out that the selection of content is of necessity interwoven with the placement of topics by grade level. Consequently, the staff had to draw upon learning principles and what is known about maturation, abilities, and interests of pupils at different grade levels in attempting to choose topics which would fit three additional criteria:

(6) Is the topic suited to the maturity level and abilities of pupils at each grade level? Even if the topic can be

taught at that level, is such teaching an efficient use of time? Can it be taught better and more quickly at another level? Are there other important topics which can be understood more easily at that level? Since the difficulty of topics at each grade level is related to the previous experiences of pupils at that level, can some experiences needed as background for this topic be included at earlier grade levels?

(7) Can the topic be related to the interests of pupils at that level? Even if pupils do not already have an interest in the topic, is it easy to develop an interest in it early in the study of the topic? Will teaching this topic have a positive rather than a negative effect upon pupils' interest in the social studies?

(8) Does the topic fit together with other topics at a grade level to form some kind of coherent theme of study so that pupils will find it easier to organize information into meaningful structures than they would if the topics remained isolated in their minds?

6. Using Varied Principles to Select and Organize Content to Achieve Multiple Goals

Because of their beliefs about knowledge and society, the staff rejects good-bad, all-none dichotomies. It believes that choices involving value conflicts and policy decisions must be made from a continuum of possible choices. At each point in the process of selecting and organizing content and learning experiences, the curriculum developer must ask: Which position, at this time, will be most likely to achieve a particular goal or to balance goals which are all thought important?

Most of the decisions about specific aspects of the curriculum design have involved making delicate judgements from among positions which might be placed on a continuum of possible judgements or, more realistically, on at least a three-dimensional construct of possible positions. Some judgements, for example, involve a selection of topics in terms of what role the school should play in a democratic society. One end of the base line on the construct might represent the position that there are essential and persisting truths which should be passed on as part of the cultural heritage. The other end might represent the position that it is the job of the school to help reconstruct society in terms of specific goals of the curriculum makers. Somewhere toward the middle of this line one would find the position taken by this staff that the school should pass on certain aspects of the cultural heritage which will enable pupils to meet changing needs in the modern world, without any attempt at indoctrination in terms of the beliefs of the curriculum makers about specific policies related to societal problems.

A third dimension might be added to this construct in the form of a vertical continuum involving the degree to which the curriculum should pay attention to the immediate needs of pupils or only to their needs as related to their role as citizens. The whole three-dimensional construct might be thought of as a triangle. The particular mix chosen could be identified as a point within this triangle to indicate the comparative emphasis upon topics to be studied in the light of how the curriculum builders view the role of the school.

Decisions related to this continuum or construct make up only a small part of the decisions which must be made at specific steps in developing a curricular design. Another important area of decisions, for example, is that of determining how best to achieve the goals identified. What principle, or what blend of principles, provides the best guidance for organizing content and learning experiences to achieve these goals? What teaching strategies are most likely to achieve the goals?

Since curriculum making involves decision-making, it is subject to many factors influencing and limiting those decisions, just as are decision-makers involved in making public policy about social, political or international affairs. Moreover, the curriculum maker must consider multiple factors in making his decision, just as does the decision-maker involved in making public policy or policy for a business firm. These decisions will vary over time as factors such as society, knowledge in the social sciences, knowledge about learning and maturation, and goals change. Since tactics and materials must be chosen to achieve multiple goals with different kinds of students, choices may not fit into neat, elegant models which follow one principle consistently all the way through the curriculum. The job of the curriculum builder, in one sense, is that of an engineer or architect. He must select specific techniques and materials to achieve different purposes at each stage of the construction. He will use one technique at one stage to achieve one purpose, another technique or principle at another stage to achieve a different purpose. Curriculum building is complicated. It is as simplistic to promote one panacea to achieve all educational goals for all youth as it is to promote a panacea for the solution of a social problem. Usually, a multiple attack is needed for any social problem because of its multiple causes. Multiple attacks are also needed to solve the problems involved in developing a curriculum to achieve multiple goals and to meet the varied needs of each pupil as well as the needs of a diversity of pupils.

Moreover, the task of the curriculum builder is far more complex if he is developing a K-12 curriculum than if he is working in only one social science area or on only a few grade levels. A curriculum worker concentrating on the secondary level can say that the social studies program at that level should focus upon public controversy, that concepts needed to study such controversy should be taught in the elementary school, but that it is up to others to develop an elementary school curriculum. Such a curriculum director can narrow his goals and so can concern himself with fewer principles for selecting and organizing content and learning experiences. Similarly, curriculum developers working within only one social science field can select a principle for organizing content which seems particularly important for organization in that field but perhaps not equally useful in others. Or social studies educators can urge teachers at the secondary level to focus upon reflective thinking and contemporary problems. Such a prescription for individual teachers at this level may prove very effective in achieving certain goals. The educator who makes such a recommendation does not need to come to grips with the problem of grade placement or a sequential curriculum which will avoid duplication and make sure that somewhere in the curriculum many different problems and topics are taught. Nor does he need to consider whether or not pupils at different maturity levels should all study societal problems or whether, at some point in their social studies program, pupils need other kinds of learning experiences than those involved in dealing with controversial issues. Those developing a curriculum for grades K-12 however, cannot neglect such questions.

Moreover, since empirical knowledge is not absolute knowledge, since knowledge is changing, and particularly since evidence about learning theories are contradictory at present, it may be unwise to build all of a curriculum upon a particular theory, lest the limitations of this theory if applied exclusively, may result in educational shortcomings for some or all pupils who follow the program. As more and more research studies provide findings in which greater confidence can be placed, curriculum builders may be able to select content and techniques to achieve goals with greater certainty and to place more emphasis upon some approaches than would be wise until more research has been conducted. It may well prove, however, that research findings will provide even further support for the use of multiple teaching strategies and techniques and multiple principles for selecting and organizing content as a means of achieving multiple goals with pupils of different abilities, cognitive styles, personality structures, and interests. It is also possible that additional research findings will support the point of view that the same pupil needs experiences in learning through different approaches rather than becoming overly-dependent upon one if he is to remain flexible in his approach to learning.

Those working on this curriculum found that no one principle could be used throughout the curriculum either for selecting topics for study or for organizing content and learning experiences. They also concluded that in many cases it was wise to weave together a course based upon units using several organizing principles in order to achieve multiple goals with pupils at a particular level of maturity.

Further analysis of the curriculum will illustrate how the Minnesota Center has applied the basic decisions described above and in chapter one and tried to weave together a judicious selection of content and learning experiences and to organize them in terms of principles which seemed most useful to achieve designated goals.

Analysis of the Curricular Design

1. Providing Continuity and Sequence for the Development of Concepts, Generalizations Attitudes, and Skills

Continuity and Sequence of Concepts

One of the major features of this curriculum project is the attempt to provide for continuity and the sequential development of concepts, generalizations, skills and attitudes from the kindergarten through grade twelve. Chapter two described the approaches used to develop such a sequence. No discussion at this point can illustrate the results nearly as clearly as can charts. Therefore, a series of charts are presented in appendices 6-8 to shown the continuity and sequence from one course to another. To understand the continuity and sequence within courses, the reader should turn to the guide for each course, since each guide includes charts which show the sequential development of concepts, generalizations, skills, and attitudinal behaviors from one unit to the next within that course. An example of one page of one of these charts is found in appendix 11.

The staff decided that the anthropological concept of culture was basic to understanding the world today and for understanding factors making for change or making change difficult. The concept is also important to each of the social sciences, except perhaps to economics which usually assumes a particular culture, although those working in the field of comparative economics must consider cultural differences. It was decided that this concept would provide the main thread of the curriculum, serving to tie all parts of it together.

A brief analysis of the way in which this concept is used should also illustrate the continuity and sequence developed in the curriculum. Pupils are introduced to the concept in a simple way in the kindergarten and in the primary grades. In these courses, they do not necessarily use the term; rather they may refer to the total way of life of a particular group of people. Later they are taught the term and that culture may refer to the way of life of any group of people. At still later stages, pupils are ready to grasp the idea of culture as a system of interrelated elements, so that change in one part of the culture brings changes in other parts. At each level of the curriculum, attempts are made to increase the level of understanding both by teaching pupils more generalizations about the concept and by teaching them more sophisticated definitions. Pupils also find out how this concept fits either explicitly or implicitly into various theories and structures of different disciplines. Finally, pupils are introduced to some of the disputes over culture among social scientists today. For example, to what extent is culture actually integrated? Do the people of a society really have to share common meanings and values in order to have the society hold together? To what extent do people in one society share a common culture? How much must they share if the society is not to be disrupted?

In the primary grades the family and then communities around the world are used as vehicles to teach a number of concepts related to culture such as cultural diversity, the uniqueness of culture, culture as learned behavior, norms and values, cultural universals, including the psychic unity of mankind, and culture change. These concepts are repeated as threads throughout the curriculum. In the fourth grade, pupils learn how the total culture affects the economic system. In the fifth grade they analyze in more detail how culture fits into a study of geography as they examine the cultural use of the physical environment. In the sixth grade they find how culture helps one analyze historical material and they examine cultural continuity, culture change, cultural diversity, culture contact, and culture conflict. In the seventh grade they study a sociology course which also draws upon some anthopological materials; obviously, culture is one of the key concepts of this course and is examined more carefully as it relates to the social system and to man as a social being. Culture concepts such as learned behavior and sub-culture, are used to analyze social problems arising in intergroup relations in this country. In the eighth grade pupils study the importance of political culture to any political system, and the ninth grade course helps them understand more clearly how culture affects an economic system. In the tenth grade, American history is analyzed both in terms of the cultural assumptions of different eras which made for differences between eras and in terms of cultural change and continuity. Moreover, questions are raised about the extent to which people in any society share a common culture and the impact of the development of sub-cultures and contra-cultures upon a society. In the eleventh grade pupils examine comparative cultures and how each affects the society of people who share it. Moreover, much attention is given to cultural change as well as to cultural continuity and factors promoting cultural resistance to technological change. In the twelfth grade, too, culture is an important concept used in analyzing problems such as race conflict, war and peace, and conflicts in Africa South of the Sahara as well as problems related to economic growth in underdeveloped countries and questions which people in the United States raise about the good life. Several units at this grade level also raise some of the issues which social scientists are now debating about the culture concept, including the degree to which culture is integrated and how widely and what parts of culture must be accepted by most members of a country if that country is not to break up in disorder.

The study of the concept of culture, then, like that of many of the other concepts, is introduced at increasing levels of difficulty. Pupils gradually refine their definitions of the term, and they learn many more generalizations about it and so relate it to many additional concepts and structures or theories. Finally, they are introduced to some of the controversy among social scientists concerning the concept, controversy which relates directly to its usefulness in analysis and prediction. The introduction of such controversy should help pupils develop a scepticism of the finality of knowledge and a willingness to modify concepts and generalizations in the light of new data.

Continuity and Sequence of Generalizations

One can also look at the curricular design in terms of the continuity and sequence of generalizations. One example related to economic output should suffice, and not even the broadest generalization about output can be traced within the space limits of this chapter. The broad generalization relates to a number of factors which affect economic output. One of these factors is the efficiency of the organizational structure of a firm, of any major sector of the economy, or of the economy as a whole. The sub-generalization reads, "Output can be increased by a more efficient combination of productive resources (by the way in which production is organized)." In grades two and three, pupils are introduced to the idea that division of labor and specialization make possible increased production. In grade four, this sub-generalization is reviewed, and pupils are introduced to the generalization that mass production with its greater specialization and substitution of capital goods for labor permits reduction in costs. They also learn something about the need for mass markets if mass production is to be profitable. In addition, pupils study different types of business firms and examine them in terms of how they affect efficiency of the organization of production. The fifth grade course on geography continues to review the generalizations about division of labor and specialization and the need for mass markets for mass production. It also relates efficiency of organization to the selection of a site for production of certain kinds of products, and it introduces the idea that "Mass production depends upon the development of transportation facilities and political developments which open up markets." The sixth grade course continues to review generalizations learned earlier but does not expand upon those related to the efficient combination of productive resources. Grades seven and eight omit this generalization except in non-election years when eighth grade pupils study the Middle East. In the ninth grade, pupils use the same sub-generalizations again to help them understand the broader generalization about the importance of an efficient combination of productive resources. They are also introduced to the idea of diminishing returns as it relates to the efficient organization of productive factors. The ninth grade, and to an even greater extent the tenth grade course, develop the supporting generalization that "Efficiency studies may increase output without increasing the amount of resource input by bringing about a different organization or increasing motivation for production." The tenth grade continues to emphasize the sub-generalizations learned earlier.

In the eleventh grade pupils study comparative economics. They look at total sectors within an economy and look at different ways in which economies resolve the basic economic questions facing any society. Examination of the Soviet and Chinese economic systems as they have changed over time helps pupils understand the generalization that "The organizational structure of the total economy or of any large sector of it (such as agriculture or mining) affects efficiency of production and output, just as does the organizational structure within a single firm." All of these ideas are used again in the twelfth grade units on Economic Growth and on Underdeveloped Countries. For example, this last sub-generalization helps pupils examine problems related to land ownership in underdeveloped countries. The content and learning experiences woven through the curriculum to help pupils learn this broad sub-generalization about the importance of organizational efficiency to output are supplemented by many other learning experiences to teach pupils about the other factors which affect total output. In other words, strands can be traced for each of the sub-generalizations which all add up to the broader generalization about the many factors which affect economic output.

Not all of the major generalizations are as complicated as this and so not all have so many sub-generalizations to be taught in order to build the broader generalization. For example, the generalization that "Culture is learned, not inborn" is developed through many different topics at many grade levels. Pupils also learn other generalizations about how culture is learned and about the varied groups and institutions which affect this learning, but the generalization itself is not broken down into a series of sub-generalizations.

Continuity and Sequence of Attitudes

It is also possible to look at the curricular design in terms of continuity and sequence of experiences which are designed to affect attitudes. Among the other attitudinal behaviors identified as goals for the program, the staff included the following: (1) Values human dignity; (2) Treats people as individuals, not as members of a particular group;

(3) Is sensitive to the feelings of others; (4) Believes in equality of opportunity for all; (5) Desires to protect the rights of minorities; and (6) Evaluates proposals and events on the basis of their effects upon individuals as human beings. Clearly, each of these goals has relevance for one of the most crucial societal problems facing this country today, that of racism and discrimination against minority groups. Therefore, although other parts of the curriculum are designed to help achieve these goals, this section will analyze only the treatment given to cultural diversity and minority group relations to illustrate how these and other attitudinal goals are developed throughout the curriculum.

Any attempt to develop the attitudinal behaviors listed above had to take into consideration what was known about the development of attitudes in general and attitudes toward other races in particular. Research evidence seems to indicate that much more progress can be made in affecting attitudes if such attempts are made while children are still young. Moreover, evidence suggests that repeated exposures to experiences designed to affect attitudes will probably be more effective in the long run than a massive attempt at just one point in the school curriculum. Other kinds of research indicates that some kinds of material seem more helpful in affecting attitudes than other kinds.

It might be noted here that many members of the black community today urge the inclusion of the history of the black man both in Africa and in this country with two goals in mind. First, they believe that such content will help black youngsters develop a better self-concept. Evidence on this point is not clear, but some suggests that this may be so, although much more needs to be known about just what history and what learning experiences related to it would prove most effective in achieving this goal. This stated aim fits in with the aim stated earlier in this report to help pupils achieve emotional adjustment and self-respect. A second assumption of those urging the inclusion of African history and more history about the Negro in this country is that it will help change white attitudes toward the black man. Again, much more research is needed to find out whether or not this assumption is supported by evidence. It might prove, for example, that such history might have one effect upon black youngsters and another on white youngsters. It might prove that this approach is effective in changing the attitudes of some youngsters but not those of others.

There are other possible approaches to trying to affect attitudes toward races than using an historical approach. Sociological content and analysis might prove more effective. Or very early study of anthropological materials designed to teach culture concepts such as diversity, cultural universals, and the psychic unit of mankind might prove more effective.

At the time this curricular framework was developed, staff members felt it wise to use varied approaches in an attempt to develop the attitudinal goals identified above. Beginning in the kindergarten, children are introduced to children of other lands through the vehicle of stories which help them identify with these children and so notice ways in which they are like American children as well as ways in which they are different. Grades one through four focus upon the study of many different cultures and are designed to teach, among other things, an understanding of cultural universals as well as cultural diversity and an acceptance of diversity. There is less emphasis upon these objectives in grade five, although they are identified as objectives in several case-studies on Latin America. In grade six, pupils study not only other cultures in the form of different Indian cultures, but they study the effects of culture contact with the Indians. The unit on the Civil War and Reconstruction includes extensive treatment of slavery and of discrimination both during and following the Civil War, and pupils look briefly at the African background of slaves.

A different approach is used in the junior high school courses. In grade seven pupils study a long unit on Intergroup Relations whic focuses upon relations between Negroes and white people but which includes some treatment of other minority groups as well. The approach used is sociological rather than historical, although teachers are urged to include some historical background if pupils have not come through the sixth grade course in the curriculum. In the eighth grade, civil rights topics are used to teach pupils about our political system and decision-making within that system. In the legislative unit, pupils read case studies on the passage of the Civil Rights Acts of 1960 and 1964 and are asked to find out what has happened since the 1964 act. One case study in the executive unit focuses upon executive decision-making during the Little Rock school crisis. In the ninth grade pupils return to minority problems as they study the unit on poverty and identify more clearly the economic and social consequences of discrimination for the minority group members involved.

The senior high school program calls for a combination of historical, sociological, and anthropological approaches. The tenth grade course returns to an historical approach to minority group relations in this country. The eleventh grade does not focus upon minority problems in this country, but does deal with other cultures and with minority problems in those countries. Finally, the twelfth grade course includes a heavy emphasis upon race relations in two units. One is focused upon race problems in Africa South of the Sahara and includes fairly extensive treatment of African history, including history prior to the coming of the white man. The second unit focuses upon Racial Conflict in the United States. It supplements the sociological treatment in the seventh grade course, brings developments up to date, and then focuses upon recent developments among the groups involved in the civil rights movements, upon race conflict and riots, upon theories developed to explain the causes of prejudice and racism, and upon alternative approaches to easing the problem. Moreover, other minority groups are considered in relationship to the unit on security and freedom, as pupils examine the treatment of Germans during World War I and the relocation of Japanese-Americans during World War II.

The study of discrimination may affect the attitudes of some but not of others, since racial attitudes are learned early and are deep-seated. Such study should make all pupils more aware of their own attitudes and of conflicts among them. Intellectual understanding may lead some to modify their behavior toward minority groups before their emotional reactions to them change greatly. The kind of learning experiences used in teaching the content may be important. For example, in the seventh grade unit pupils read novels and biographies about people who have suffered from discrimination. Some research findings indicate that such materials are more likely to effect attitudinal change than other kinds of books of non-fiction.

This description of ways in which content related to minority groups has been interwoven into the curriculum does not include an analysis of all of the ways in which both content and learning experiences have been used to try to develop some of the attitudinal behaviors identified at the beginning of this section. Members of the Curriculum Center could not be sure that the inclusion of any of this content or learning experiences would have an impact upon the attitudinal goals identified. However, the research findings about attitudinal change made the goals seem worth including in the curriculum. The effectiveness of the curricular materials in developing these attitudes should be evaluated in a variety of ways and over a period of time to try to assess the total impact of the K-12 sequence.

Continuity and Sequence of Skills

One can also look at the curricular design in terms of continuity and sequence in the development of skills. Again one example must suffice. A major goal of this curriculum is to teach pupils to evaluate sources of information on the basis of several criteria. Attempts to teach the need to evaluate sources is developed very early. One of the things which has impressed many teachers using the first grade course is the fact that the children begin to check the accuracy of pictures and stories against data which they have learned earlier. In the third grade unit on the Manus, children discuss differences between eyewitness accounts and other accounts as sources of information. In the fourth grade they compare several accounts about the Soviet Union, note differences in the accounts, and so come to see the need for checking on the bias and competency of their sources. To introduce sixth grade pupils to the ways in which cultural perceptions affect a witness' observations and the need for looking at different accounts, pupils are shown a series of slides or a film about Aztec life and asked to pretend that they are Europeans who have visited the Aztecs. They are to write up their account of what they have seen. Pupils' accounts are then compared. The class finds that their reports differ both as to specific facts and as to what pupils thought worth reporting. They also find that most of them have reported certain kinds of things which struck them as very different from their own culture but have neglected to report significant facts which did not impress them because they did not appear unusual. The discussion of their own reports helps pupils identify kinds of questions which need to be asked about eyewitness accounts as they study history or any present-day event. Through this and other learning experiences, sixth grade pupils learn something about how cultural bias and perspectives may affect accounts written about other cultures, how individual biases may affect accounts, and the need not only to examine the bias and competency of observers but the completeness of data before coming to any conclusions. Later in the year pupils examine accounts of slavery which represent different viewpoints. Again they are led to see the need for a critical evaluation of sources and the use of a number of sources in order to obtain a more complete picture.

In these earlier grades, pupils are given shorter and fewer sources to compare. Moreover, they are introduced to the need for evaluating sources through less controversial topics, so that they can develop some skill in evaluation and some critical caution in the use of sources before they encounter the need to evaluate sources about topics on which they may feel strongly. As pupils advance in the program, they are asked to evaluate longer, even full-length books, dealing with highly controversial topics, and they are asked to compare more sources. For example, at the eleventh grade level, members of the class read different accounts of Red China or different accounts of the Soviet Union. They compare these accounts to find out points of agreement and disagreement as well as the competency and bias of authors.

Gradually, also, pupils learn more kinds of questions which they should ask as they evaluate sources. They identify more factors which should be checked in evaluating the bias and competency of sources of information, so that they refine their use of this skill as they advance through the program. In addition, they learn to check on such factors as consistency and the completeness of data. For example, in the seventh grade they are introduced to the idea of sampling and the need to evaluate sampling studies in terms of the representativeness of the sample. In the eighth grade they look at sampling once more and also examine the need for critical evaluation of generalizations based upon correlational studies. These aspects of evaluation in terms of completeness of data are used at later levels, and pupils are also introduced to other factors which they should consider in evaluating sources in terms of limitations of data. An examination of the chart on skills in appendix 8 shows how the curriculum provides continuity and sequence in the development of this skill.

2. Providing for Study of the Different Social Science Disciplines

Mixed Disciplinary and Interdisciplinary Courses

The Center's curriculum provides a combination of both disciplinary and interdisciplinary study. There are some courses which focus primarily upon one discipline. However, they may include concepts from other fields and may teach the main ideas of the discipline while at the same time studying important problems or topics related to other disciplines. As has been seen earlier, the eighth grade course uses case studies related to civil rights to teach pupils about political decision-making and power relationships. Moreover, the course draws upon many sociological concepts such as conflict, role perceptions, role conflict, culture, and socialization, since modern political science has borrowed such concepts to help them analyze political behavior.

To use another example, the tenth grade course is a course on American history, but in line with modern developments within the field of history, it draws upon many concepts and ideas from the behavioral sciences to help pupils analyze and make sense out of historical data. Moreover, the course is used to deepen and expand pupils' knowledge of some of the behavioral sciences as they deal with topics thought too difficult for the junior high classes or as they seem to lend themselves more easily to teaching through an historical context. The treatment of economic growth is very limited in the ninth grade course on economics; it is developed extensively through the course on American history (and is also studied in other parts of the world in later courses). Furthermore, labor-management problems and the rise of labor unions are dealt with in historical context following the rise of big business. Viewing unions and business corporations in this context makes it easier for pupils to understand unions and anti-monopoly legislation than does an approach which focuses upon only the present-day manifestations of unions and business corporations. The tenth grade course also treats business cycle fluctuations and business cycle theory in some depth after pupils' concerns and curiosity have been aroused by fairly extensive study of the great depression and its economic and psychological impact upon the people living at that time. In a period of prosperity it is difficult to help pupils understand depressions without the use of an historical approach.

Some of the Center's courses are designed to cut across boundaries between the social science disciplines. It was not thought appropriate to focus upon separate disciplines in the primary grades. Moreover, the last two years in the senior high school are definitely interdisciplinary. The purpose is to help pupils understand how they can draw upon different social sciences as they study problems of importance in the modern world. Since they have studied these disciplines in a more logically organized fashion in earlier years, they can make use of what they have learned to examine new problems.

The Junior High Sequence on the Behavioral Sciences

One of the major changes made in this curriculum over the more traditional program was the substitution of courses drawing upon the behavioral sciences for history and geography at the junior high level, including the placement of a study of government at the eighth rather than the ninth grade level. There were a number of reasons for this shift. First, the staff believed, as indicated earlier, that much more behavioral science should be included in the curriculum. This shift provided for much more extensive treatment than in the past.

Second, the twelfth grade course in the traditional curriculum had become the dumping ground for most of the behavioral science or aspects of it taught in the curriculum. The result was superficial treatment of most topics in such a course. Although government was being taught also in the ninth grade, there was overlap and duplication between the ninth and twelfth grade courses, with little thought as to how the two could be differentiated. Placing a three year sequence of behavioral sciences in the junior high school would permit much greater selectivity of topics and study of these topics in some depth in the twelfth grade course.

Third, the subject matter of sociology and the question of why man acts as he does seemed eminently suitable to the interests and immediate needs of youth just entering the seventh grade and a new school. Pupils at this age level are very concerned with their own behavior and their relations with groups.

Fourth, research findings on political socialization suggested that a government course should be taught earlier than was traditional, since pupils' attitudes toward politics is fairly fixed by the time they enter high school.

Fifth, since the staff wished to have pupils use social science concepts and theories to analyze historical data in American history, the senior high school American history course needed to be placed after a study of sociology, political science, and economics. Then, too, the staff had decided that it was desirable to teach a series of area studies in the secondary curriculum. Study of their own social, political and economic system first would make it possible to study these other areas of the world in much more depth and with greater analysis than would otherwise be possible.

Sixth, the staff wished to have pupils test social science generalizations against historical data and data from other cultures to find out whether or not they were time-bound or culture-bound. The experience of having to limit generalizations would be useful in helping pupils develop a scepticism of the finality of knowledge and an understanding of the problems facing the social scientist.

Seventh, the arrangement among the three courses at the junior high level was determined in part by the degree to which each discipline used concepts or variables from the others. For example, modern political science draws heavily upon both concepts and techniques from sociology. Moreover, the political system is only one part of the broader social system and is affected by it. Therefore, it seemed logical to place the study of the political system after the study of the social system. The course on economics was being designed to include several units organized around problems which are considered so important that the government is involved in making policy decisions about them. It seemed helpful therefore, to place this course after the course on political science which teaches pupils about the factors influencing and limiting political decision-making connected with public policy and which includes a study of interest groups which attempt to affect public policy. The economic system is also affected by the total social system of which it is a part and might logically be studied after a course on the social system.

In making their decisions about placing behavioral science in the junior high school, the staff was testing out certain hypotheses about how well these topics would fit into the interests of pupils at these levels and how well the concepts from these fields could be taught at such levels. Until courses had been designed, research could not be conducted to test these hypotheses. One research project related to one of these assumptions is the subject of the research study reported in appendix one.

Examples of Two Disciplines as Strands in the Curriculum

It should be noted that the different disciplines are drawn upon in many different courses so that pupils study aspects of them or use concepts from them throughout their school career. The course and unit titles do not show clearly the extent to which the different disciplinary strands are woven into the curriculum at different places. Although it is impossible within the confines of this chapter to describe the way in which each discipline is used in the curriculum, several examples may illustrate the point. The chart in appendix five summarizes the way in which all of the disciplines are used.

Since geography is omitted as a course in the junior high school, some teachers have thought that geography is neglected in this curriculum. Therefore it might be helpful to illustrate how geography is woven into the total curriculum and some of the reasons for certain curricular decisions concerning geography. Geography is not placed in one or two grade levels and then dropped at the end of the junior high program. It was thought wise to weave a geographic strand throughout the curriculum in order to provide more opportunities for pupils to use and refine concepts, generalizations, and geographic skills. Although the placement of geographic content can be seen in part from a study of unit titles, much geographic content is included which does not show up clearly in these titles.

The kindergarten course focuses upon the study of geography, although obviously in an elementary way. The concepts and skills learned in that course are used and many more developed as children study the courses for grades one through four. The families and communities chosen for study in these courses were selected in part to teach pupils different site concepts. Almost all of these units begin with an examination of the physical setting in which the people live. Moreover, each unit reviews certain geographic skills, and new skills are introduced at appropriate points. For example, the unit on the Trobriand Islanders in grade four lends itself well, since it deals with a small, unknown island, to teaching pupils the value of using the global grid and an atlas index to locate places. As pupils advance through these courses, they gradually compare more and more map patterns of the same area and apply previously-learned concepts and generalizations as they draw inferences from a comparison of these map patterns.

The fifth grade course focuses upon the study of geography once more. The course is based upon a regional study of the United States, Canada, and Latin America. Within each region, pupils use a sequent-occupance approach to study changes in the use of the area.

Treatment of geography in the sixth grade is much more incidental than in previous courses. Pupils review what they learned in the fifth grade about different areas and study some of them a little more carefully as they existed and were perceived and used by early settlers in this country and by different cultures.

Although geography is not the focus of any of the junior high courses, it is not neglected in these years. True, geography is not introduced into the seventh grade course except as pupils use it to analyze current affairs. The treatment of geography in the eighth grade course is also incidental except in non-election years. Several case studies used in this course draw upon geography. Moreover, the chances are that pupils will use geography as they study the unit on local decision-making, although this use depends upon which local problems pupils select for study. The unit suggests that pupils might study some metropolitan problem which would require geographical analysis as well as analysis in terms of some of the other social sciences. Pupils in the ninth grade course also draw upon geographic ideas as they analyze the causes of poverty in depressed regions in this country.

In non-election years, pupils study the Middle East in both the eighth and ninth grade courses and so spend considerable time examining the geography of that region. If pupils do not study the area in one course, they will do so in the other. Although the treatment of geography is incidental in the seventh grade and in non-election years in the eighth grade, the inclusion of the area study on the Middle East in grade eight or nine provides pupils with an opportunity to apply previously-learned concepts, gneralizations, and skills, and to learn new ones as well as to extend their knowledge to another important area of the world.

Geography is not forgotten in the senior high school, as it is in many traditional curricula. It receives only incidental treatment in the tenth grade American history course, but the eleventh grade course includes a heavy emphasis upon geography in each of the area studies. Pupils again apply previously-learned concepts, generalizations, and skills as they study each of these areas; moreover, new ones are introduced.

The twelfth grade course also builds upon pupils' knowledge of geography. An area study on Africa South of the Sahara again includes much geography and ensures pupils' continued use of previously-learned knowledge and skills. Pupils must draw upon geography as they analyze problems in the unit on Underdeveloped Countries. They must also draw upon the field of geography as they focus upon the Viet Nam struggle in the case study used in the unit on War and Peace.

The curriculum is designed to give pupils opportunities to study almost all of the important areas of the world as well as to approach geographic study in a variety of ways. There are only two major exceptions to this statement. First, no study of Australia is included in the curriculum, and second, pupils study Japan in an organized way only in the first grade, although they look at economic growth in that country in one of the senior high units. Moreover, it is also true that pupils do not study every country in Latin America or in the Middle East. In the fifth grade, after looking at overall patterns in Latin America, they focus upon selected case studies. In the junior high school, after some general geographic study of the Middle East as an area, the unit is narrowed down to several of the important countries and others which can illustrate clearly certain differences among them. However, a twelfth grade unit calls for the study of Underdeveloped Countries. It is suggested in this unit that each pupil select some one underdeveloped country not studied extensively earlier, and that many focus upon Latin American countries or countries in North Africa or other parts of the Middle East which have not been studied in depth earlier. There is also no single unit on Southeast Asia or on any country within that area, although there are units on China and India. However, in the twelfth grade the unit on Underdeveloped Countries gives individual pupils a chance to study some of these countries and the case study on Viet Nam in the unit on War and Peace entails some geographic study of the two Viet Nams and of the surrounding region.

An analysis of one other social science strand should suffice to illustrate how the strands from the different disciplines are interwoven in the overall curriculum. The primary grades draw upon economics only incidentally. Children learn something about concepts such as division of labor, specialization, and trade and about different ways of making a living as they study families around the world in grades one and two. They learn a little more about economic interdependence and specialization in grade three. However, the first major emphasis upon economics comes in grade four. This course uses the vehicle of communities around the world to teach pupils first about their own economic system and than about comparative systems to illustrate the way in which the economic system is affected by the total culture of a society. For example, pupils study the modified command system of the Soviet Union, noting changes which are taking place and contrasting this system with that in their own society. They study the Trobriand Islanders as an example of a society in which the major basis for exchange consisted of traditional reciprocal relationships rather than either a market system or a command system, although there were elements of each. Finally, pupils look at a village in India and then at a contrasting view of a city in India to examine an economic system with a still different mix between traditional reciprocal relationships, a market system, and a command system.

In the fifth grade, the treatment of economics is only incidental again, although some of the concepts from the fourth grade are reinforced. The sixth grade course illustrates economic changes in our society and provides contrasts once more with different economic systems among several Indian cultures. The seventh grade course pays almost no attention to economics, except as this topic is related to intergroup relations in this country. Nor do pupils study economics in grade eight except in non-election years when they study the Middle East and notice differences in economic problems and in economic systems.

In the ninth grade, however, pupils once again spend most of a year studying economics. In the first two units they review and expand their analysis of the economic system as a whole and then turn to several socio-economic problems. In non-election years they contrast this study with that of economic problems and economic systems in the Middle East.

The tenth grade course in American history continues to use economic concepts and generalizations which pupils have studied earlier. Moreover, it builds in many new ideas and economic topics. Indeed, the framework for the last half of the course is built around economic growth theory and the changes in society which arise out of a maturing economy. In one of the units pupils study the rise of different kinds of corporations and the counter rise of labor unions. The course also provides extensive study of business fluctuations and business cycle theory.

The last two years in high school provide continued emphasis upon economics. In the eleventh grade area studies course, pupils make a thorough analysis of the economic systems of the areas studied, constantly using what they have learned earlier and testing generalizations to find out if they are culture bound. In the twelfth grade, economics provides the main emphasis in two units: those on economic growth at home and on underdeveloped countries abroad. It also receives extensive treatment in the unit on Africa.

This entire curricular sequence is designed to gradually deepen pupils' understanding of concepts learned in earlier years by adding additional generalizations about these concepts and by giving pupils many opportunities to apply them in new situations in order to help them make sense out of new data. Moreover, the sequence provides for the gradual addition of some new concepts, and the sequential development of generalizations about them. The topics used to review and teach new concepts, however, differ.

3. Providing for Content Related to Pupils' Interests and Needs

One criteria for selecting content topics for the different grade levels was whether or not it was thought that such topics would be of interest or particular concern to pupils at that level. Moreover, it was thought wise to include some topics which might be particularly useful in helping pupils examine their own value positions, understand their own behavior, or grapple with tasks which they would meet as individuals. As indicated earlier, the seventh grade course on Man and Society was placed at that level in part because of the concerns which pupils at that age have as they enter a new school both as they try to understand their own behavior better and as they try to understand their relations with other people and why others act as they do. At the twelfth grade level, the final unit in the entire curriculum helps pupils analyze themselves and their relations with others but from a very different context. This time the unit focuses upon the questions: What is a good man? What is the good life? and What is the good society? The unit is designed to help pupils examine their own values, come to grip with these questions, and try to work out, to some degree, a more consistent philosophy of life.

Other topics are included to meet different needs. For example, the ninth grade course is focused largely upon our economic system and is designed to help pupils learn concepts, generalizations, and skills which they need as citizens to evaluate economic policies. However, one of the units includes a section on consumer economics; this consumer economics is introduced in the unit on the auto industry and uses the vehicle of problems consumers face in purchasing autos and as auto owners. Consumer economics does not provide the chief focus in this unit, but it does constitute an important part. Moreover, the broader economic analysis of a market based upon oligopoly and of third party costs is related to a topic in which pupils of this age level in our society have a high interest.

Another unit at this level, on poverty in the United States, not only deals with a societal problem of interest to pupils of this age level, but introduces material on factors related to poverty including lack of education. This material is included in part in the hope that potential school dropouts will consider carefully some of the probable consequences of leaving school at the end of the ninth grade. The unit also provides other kinds of information about automation and our changing work world which has implications for occupational choice.

Other unit topics, case studies, and parts of units have also been selected in part in terms of pupil interests. For example, selection of families in other parts of the world for study in the primary grades was made on the basis of a number of factors. One was the indicated interests found in studies of childrens' interests. Many topics could have served as the focus for the case studies used to teach pupils about the judicial process. Case studies related to civil liberties not only focused upon important value conflicts in our society and on a persisting problem in all societies, but dealt with topics which seem to hold great interest for pupils at this age level--far more interest than many which might have been chosen.

b. Providing for a Study of Societal Problems and Trends

A major criterion for selecting topics for study was their significance in terms of the relationship of the topic to important social trends and persisting problems in society, particularly those involving sharp value conflicts. Most of the societal problems and controversial issues identified by other projects are included in this curriculum. Some are studied from different points of view at several different places. For example, the conflict between security and freedom is highlighted in a number of cases studies in the eighth grade judicial unit, in the unit on the Civil War in the tenth grade, as a problem facing other societies in the eleventh grade course on area studies, and in two units in the twelfth grade, both as a problem facing countries in Africa and in the long unit on Security and Freedom in this country. Other issues related to civil liberties, such as religious freedom, are the subject of case studies in the eighth grade course. The treatment of other political problems related to democratic control and political power, the need for compromise as against the desire to follow ideological principles, etc. are analyzed at the eighth grade level as well as in connection with the senior high school American history course and some of the area studies. Economic problems related to economic security and to living levels are examined in grades nine, ten, and twelve for this country and also in area studies and in the unit on underdeveloped countries. Social problems related to intergroup relations have been examined already. Social problems related to social stratification are examined both in this country and abroad. Family problems and questions related to emotional health are treated briefly in grade seven and suggested as possible topics for further study in the unit on the good life in grade twelve. Foreign policy problems and problems of war and peace are analyzed in great detail in the last two years of the senior high school and are introduced at earlier levels in connection with the executive unit in the eighth grade and the junior high school unit on the Middle East.

The curriculum also pays attention to important trends in the modern world, only some of which can be examined here. Many of the elementary school units are aimed at developing ideas about interdependence. For example, the case studies at the fifth grade level show the increasing dependence of places in this country upon other parts of the country and the world as a whole. This same trend is emphasized at other places in the curriculum such as in the area studies in the junior and senior high school. Both the rising nationalism in underdeveloped parts of the world and the rising economic expectations of the people in these countries are studied in several area studies and also in the units on Underdeveloped Countries and on War and Peace at the twelfth grade level. Problems arising from rapid population growth in the world are examined in several places, particularly in several of the area study units and in the unit on Underdeveloped Countries.

Increasing urbanization and some of the problems arising from the growth of large metropolitan centers in this country are treated in some of the fifth grade case studies, in the eighth grade unit on local decision-making, and in the ninth grade unit on Poverty. Some of the effects are also analyzed in the last unit in the tenth grade American history course, and related problems are studied in connection with the unit on the Good Life in the twelfth grade.

Rapid scientific and technological developments are examined in several historical units, and so are some of the problems which have resulted. In the ninth grade unit on Poverty, pupils look at the effects of automation and other technological changes upon workers. They find out about the increased difficulties which a change in the labor structure has brought to attempts to help relatively uneducated and untrained people find employment. Pupils study other results of some of these technological changes. For example, the unit on farm problems examines problems arising for farmers because of the drastic increase in farm production in the face of inelastic demand for their products. A tenth grade unit focuses upon problems of economic instability which developed in this country as technological changes brought increased productivity and greater economic interdependence. The impact of technological and scientific developments upon war are studied in connection with the Civil War in the sixth grade, the two world wars in the eleventh grade, and the unit on War and Peace in the twelfth grade.

It should be noted that most of the controversial societal problems are placed in courses beginning in the sixth grade, although some are raised earlier, particularly in connection with the fifth grade study of urban areas. Since these societal problems grow, in large part, from some of the important trends in the world, it is difficult to treat them with any degree of sophistication until after pupils have developed more of a time sense then they possess in the earlier grades. However, at an elementary level, some of these trends and problems are introduced in connection with the concept of change in the different families and communities studied in grades one through four. Moreover, the study of different societies introduces the idea of the interdependence of the world.

Selecting and Applying Principles for Organizing Content

Some of the staff's major decisions had important implications for the ordering of content rather than for the selection of content. The staff rejected the old expanding environment (moving from the near to the far) pattern of organization as a means for determining sequence either within courses or from one course to another. This principle seems to be based upon two assumptions, neither of which the staff could accept. The first assumption is that the near is easier for pupils to understand and can be made more concrete to them than that which is distant from them. As the expanding environment principle has been used in curriculum development, the near-far approach has been applied in terms of geographical distance rather than in terms of experiences which may be close to or removed from pupils' experiences. Certain kinds of topics which deal with peoples of other parts of the world may be more directly related to the experiences of pupils than other topics which deal with the local area. Indeed, that which is near in physical proximity may be quite difficult. The degree of concreteness or relatedness to past experience depends upon the focus of the topic being taught. Some processes or institutions in the local community can be made no more "concrete" to young children than other processes or institutions further removed from the local area but dealing with ideas which are more closely related to their own experiences. For example, it may be easier for children to understand families or ways of socializing or educating pupils in other countries than to understand other kinds of social, economic, or political institutions and processes in their immediate environment. Therefore, this staff believes that the near-far principle as applied in terms of geographical distance is not supported on the basis of assumption number one.

Second, research findings do not seem to support assumption two. Studies of interests have found that young children are frequently more interested in far-away places than in the more familiar local area. Moreover, studies of political socialization indicate that younger pupils are more interested in (and know more about) the national government and the President than they do about local government.

There is another difficulty with using the near-far principle for ordering content in the elementary grades. Some topics related to diversity of cultures and other peoples might be placed too late in children's careers to have as much impact upon their attitudes as they would at the earlier levels. Following such a principle for sequence might also make it more difficult to develop continuity on some important concepts related to the international scene.

1. Use of the Simple to the Complex Principle for Organizing Content

The staff found the principle of moving from the simple to the complex far more useful as a principle for sequence than for the near-far principle. However, even this principle will not prove useful in all situations. Some topics lend themselves better to a logical approach which could require learning a somewhat difficult idea before another idea which might prove less difficult. Nevertheless, most, though not all, of the sequence in the elementary school has been based in part upon the principle of moving from the simple to the complex in terms of the degree to which the topic can be made to seem concrete either because it is easy to relate to past, meaningful experiences of children or because of the kinds of media which can be used to teach it. Some films, slides and stories can make certain kinds of topics about far-away places just as concrete as others which the pupils might view in their local community.[2]

---

[2] Some people even recommend the use of such media to teach pupils about their local community in order to show some things which pupils cannot see on any field trip or to focus their attention more directly upon certain things than is easily accomplished, given the distractions frequently attendant upon field trips.

How has this principle of simple-to-complex affected the curricular design at the elementary school level? The kindergarten course is built primarily upon geography as it can be seen through the local community and taught through concrete experiences or media which children can see or manipulate. In the first and second grades, children study families around the world. Although the families in other cultures differ in structure and at times in functions, the family is an institution close to the lives of children. Therefore, it is not too difficult to teach them about differences and similarities in families in various parts of the world. Information about families in other places can be made meaningful through a process of comparison, of identifying both similarities and differences. Indeed, the contrast with other types of families serves to highlight some of the characteristics of families in their own society, making these features stand out more sharply.

Although the principle of moving from the easy to complex has been used in placement of topics by course level, there is some question about whether it has been violated in determining the order in which different families are studied. Whether or not studying families closer in structure and function to their own might prove easier has not really been studied. The staff members believe that the immediate contrast of quite different families may actually make it easier to understand the idea of similarities among families despite differences than an organization which starts with families more like their own. The first grade course does not begin with the typical study of pupils' own families. The staff's sociologist argued that in a society in which so many families are broken, it would be easier for children from broken families to discuss families in their own community if they had come to understand the diversity of families around the world and within other cultures first. Children do make comparisons back and forth with their own families, but their own families are studied obliquely in the early part of the year sequence. However, the guide calls for further comparison between their own and other families at the end of grade one and additional attention to their own families in connection with a similar comparison at the end of grade two.

The third grade uses the theme of communities around the world to introduce children to other social institutions and, in a simple way, to political institutions. Children do not study government as a political system; rather, they study the need for law and some means of changing law, reasons for government services of various types, and the ways in which societies differ in terms of the kinds of services provided.

Children do not study the school as a social organization as they do later in the seventh grade. Instead, they study its functions, find out that all societies do not have organized schools, even though they have other means of socializing children, and learn that schools differ in different societies. Children do not make a thorough study of religion as an institution, but they do find out that all societies have some form or forms of religion or supernatural beliefs, that these beliefs differ, and that such beliefs affect other aspects of a society's culture. Moreover, pupils learn more in the first unit about how the members of primary groups other than the family affect the behavior of group members, about leadership, and about the importance of communication in a society. The third grade course also introduces the idea of a community and what a community entails.

In the fourth grade, children are introduced to economic institutions, beginning with those in their own community. After finding out, in simple terms, how their own economic system operates, they look at several contrasting economic systems and discover that an economic system is affected by the total way of life, including cultural values.

In each of these grade levels, except in grade two, institutions are added to other institutions which pupils have studied earlier. The families chosen for study in grade two provide a transition to grade three by introducing the relationship of the family to the larger community in a more explicit fashion than was done in grade one. It also introduces a few concepts and topics related to the institutions studied in grade three. Moreover, the units in the later grade levels are developed to add the new institutions onto the ones studied earlier. As children look at the Manus or Paris community in grade three, for example, they also notice certain things about family life in these communities. As they study economic life in the Trobriand Islands or in India, they find out about the family life and also about the other social and political institutions and see how they affect the economic institutions. In this fashion, children study more institutions at each grade level until they are able to look at total cultures without too much confusion.

It should be noted that not all economic concepts are left to grade four, but the study of an economic system is put off until then. There are also references to schools and to religion in the first two grades, but these institutions are not treated in such depth as in grade three.

In grade five the focus for study shifts but continues to build upon concepts, generalizations, and skills learned in earlier grades. The idea of the cultural use of the environment has been introduced in the earlier grades in connection with the ways in which families and communities have used their environment and ways in which this use has changed somewhat over time. However, grade five makes this idea the major focus, rather than a minor one. Pupils study the use of the same physical environment by people of different cultures or by people over time, and the course emphasizes varied factors which may affect this changing use. Moreover, the fifth grade course finds a shift in focus to a more organized examination of ways in which different communities and parts of a country are both different from each other and interrelated. The course also emphasizes the interrelatedness which exists between different countries, despite the diversity from one place to another.

In grade six, the focus shifts once again. Pupils now study cultural continuity and culture change over time in much greater depth than earlier. They note how people take their culture with them as they move from one place to another, and they find out more about cultural diffusion. The course also focuses upon culture contact and upon culture conflict and helps pupils understand the reasons for that conflict. These ideas are developed through a course in American history.

In the secondary school, pupils draw upon what they learned earlier to look at American society and other societies in a much more logically organized way and to examine many of the societal problems facing this country both domestically and internationally. For example, in the seventh grade pupils study the social system, social institutions, and behavior in non-integrated groups in a logical organization more closely allied to the field of sociology than any previous study. Moreover, they study one important societal problem at the end of the year. Study in previous grades as well as within this course have prepared them to understand and analyze this problem in greater depth. In the eighth grade pupils turn to the political system in this country and look at political decision-making and political power within a system analysis quite unlike any treatment of government found in the third grade course. The ninth grade course examines more carefully our own economic system and then deals with several societal problems related to that system. The tenth grade course analyzes the development of the present-day culture in the United States. Later grade levels examine in much greater depth than possible in the primary grades the development of cultures in other lands and also the present-day culture and social, economic, and political systems. They also focus upon problems related to international relations.

The division of topics between the two American history courses also illustrates the application of sequencing according to the principle of the simple to the complex. Instead of placing all of the early part of American history in one course and the later part in another, different topics are emphasized in each, with much content omitted in each course, or only reviewed briefly in the second course. For example, the development of political parties and inter-party conflicts in the early years of the new government are left for study to the tenth grade, when pupils can draw upon what they have learned about political parties in the eighth grade course. Material on the westward movement is emphasized in the sixth grade and included only indirectly in the tenth grade course as it relates to theories about the rise of democratic ideals and as it affected the slavery contest. Pupils do not move west with the pioneers a second time. Any military history taught is included in the sixth grade course and omitted for the sake of including different analyses of wartime problems in the second course.

2. Use of the Whole-Part Principle for Organizing Content

The whole-part principle of sequencing has been used to some degree in several courses as one basis for organizing data within those courses. For example, the eighth grade course follows a systems analysis approach to the political system. It begins with a unit which helps pupils see the need for law and government and then presents a quick overview of the major components of the political system and how they relate to each other. The next four units deal with these components in a more detailed way. The summary at the end of the year provides for looking once more at the political system as a whole. There are other principles for sequencing used for individual units and for the selection of the specific topics taught within units; these principles are described in more detail in the guide to the eighth grade course and in other sections of this chapter.

To a lesser degree, the whole-part principle is also used in the ninth grade course in which units one and two introduce the overall economic system and later units examine certain aspects of it in more detail. However, this course uses [illegible] problems rather than the components of the system as the foci of the later units. Problems are used in part for purposes of motivation, in part because these problems illustrate so clearly some basic ideas in economics, in part because the problems approach can be used to teach pupils to inquire about problems which require both an evaluation of value-conflicts and the use of social science analysis in predicting consequences of alternative courses of action. Moreover, the ninth grade course is not the first course which focuses largely upon economics and analyzes our economic system.

Grade five, also, is organized largely around a whole-part principle of sequencing. Pupils begin their study of each area included in the course with an overview of the area. They look at different physical and cultural patterns and possible ways of regionalizing the area. This introduction provides them with some picture of the different regions before they begin their more intensive study of each one. The focus of study then shifts not only to individual regions but to case studies of a particular place within each region. Each of the case studies uses a sequent-occupant approach to teach pupils how man has used and modified the physical environment in this area over time. In each of the cross-sections in time pupils look at how this place was related to the broader region, to the country as a whole, and to other parts of the world. After examining a case study, pupils then look more closely at the region within which it lies and examine more carefully the way in which this region differs from the others which they have studied.

Even though the whole-part principle of sequencing is used in only some of the courses as a principle for ordering unit topics, it is used to at least some degree within almost all of the units. The initiatory phase of most of the units gives pupils a quick overview of the topic to be studied, usually through an analysis of the major questions to be investigated. Pupils may identify these questions themselves, or the teacher may identify them, but the provision of this overview makes it easier for pupils to relate each of the parts they study to the broader focus of the unit.

3. Use of the Logical Exposition Principle for Organizing Content

The principle of ordering content according to logical exposition within a social science discipline has certain disadvantages but also some advantages. Use of such a principle could conflict with the simple to complex principle for ordering content, since the logical exposition of a subject matter field might require the study of a more difficult concept before a less difficult one. For example, in sociology, it is logically sensible to study the socialized individual before studying bureaucracy within social organizations. However, it seems to be far harder for pupils, at least at the seventh grade, to understand the concept of self than that of bureaucracy. Moreover, social scientists within one field may disagree about the logical order. Indeed, there may be several equally logical orders which could be used. The logical order might be based upon the type of explanation used as much as upon the ordering of concepts. It may also be more difficult to develop interest and to motivate pupils by following the logical order developed by academicians than by approaching the content through some other organization and letting pupils develop their own ordering of concepts and generalizations. On the other hand, a logical order might facilitate understanding of some subjects and so learning.

A sequencing based upon logical exposition is used most heavily in the Minnesota Curriculum in the seventh grade course. Here an attempt was made to introduce pupils to sociology in a more logically-organized disciplinary approach than in some of the other courses or than had been used when pupils were introduced to a number of sociological concepts in the elementary grades. This earlier study should make it easier for pupils to study a course which is organized as a disciplinary course. Since the course emphasizes inquiry approaches, however, principles other than logical exposition have sometimes determined the order in which learning experiences will be used to teach the major ideas within each unit. The course ends with a unit which focuses upon a major societal problem which needs to be analyzed using concepts developed in the earlier units. A societal problem could have been introduced early in the year for purposes of motivation. However, the general content of the earlier units seemed so relevant to pupils' interests and concerns that a controversial problem did not seem needed at that point to motivate study. Moreover, pupils would not have had the basic sociological concepts needed to analyze the problem carefully as a basis for making decisions involving value judgements.

4. Use of a Modified Chronology Principle for Organizing Content

Modified chronology has been used as a principle in organizing the American history courses and parts of the area-study units. However, chronology as a principle has been modified in terms of other factors. For example, the historian is concerned with periodization. How does one mark off the boundaries of one period from another in terms of major differences between these periods? What makes one period different from another? The historian, therefore, is concerned with synchronic analysis or looking at cross sections of the past--at the whole of society at different periods of time. However, the historian is also interested in change over time, in the processes of change, and in the factors which either bring change or slow change down. In other words, he is also interested in diachronic analysis of change over time. The historian finds it difficult to do both synchronic and diachronic analysis at the same time. One way for the historian to handle both types of analysis is to look at two periods synchronically and then to look at the period between them diachronically. Or he might look at one period synchronically, analyze a series of changes diachronically, and then look at a second period in more depth synchronically again, noting both ways in which the second period differs from the earlier one (change) and the ways in which it resembles the earlier one (continuity). This modified chronological approach is aided by the use of anthropological concepts related to the culture concept. The focus in each synchronic study can be upon how the cultural assumptions of the people of that age affected all aspects of the society and so made it different from other periods. As the level of analysis is raised, the historian can ask questions related to some of the issues in anthopology today and so can ask of any society, how many people shared how much of the culture how similarly? To what extent did the society have sub-cultures or even contra-cultures? As the historian does diachronic analysis of change over time, he can use anthropological generalizations about factors producing change and those causing resistance to change to help in his analysis. His concern with change over time, moreover, may be of two types. First, he may be concerned with non-repetitive change of either short-term duration (which might be termed historical accidents or just events) and of long-term duration (which might be called trends). Second, he may be concerned with repetitive changes or processes of both short and long-term duration, and an analysis of such processes to determine the degree of regularity of such a process (how often it occurs) and the uniformity of the process (in terms of the order within the process). He is also concerned, obviously, about why a particular change took place when it did and why it came to an end when it did.

If the historian wishes to use both synchronic analysis and diachronic analysis, he cannot follow a completely chronological sequence. Moreover, his diachronic approach may focus upon change within one aspect of society or culture rather than in all aspects, in which case he does topical studies. The logic of historical analysis, therefore, does not require a straight chronological approach to the study of history.

The modified chronological sequence used in this curriculum is built around an attempt to provide both synchronic and diachronic analysis and to raise some of the kinds of historical questions about change mentioned above. The concern is with what makes one period different from another, in large part because of a concern for teaching ideas about cultural continuity and change and factors promoting persistence of culture or cultural change.

An examination of the flow of the American history course in the tenth grade will illustrate the use of synchronic analysis at selected chronological periods. The focus for study of each era is upon the cultural assumptions of that age, how they affected different parts of the society, and how they differed from or were similar to the cultural assumptions of earlier ages. There is no attempt to cover all of the years and events in American history. After pupils have studied the Republican Age, for example, they skip over a few years to study the Democratic Age. They examine the second age to find out how it differs from the earlier age and then attempt to examine the question of why it differs and how changes have come about. The course then proceeds to a still later age and goes through a similar process. Periods of history as marked by different cultural features cannot be divided sharply from one another at time boundaries, any more than geographical regions can be separated sharply at geographical boundaries. Geographical regions have a core which fades off into marginal boundaries with other regions. Since change takes place unevenly, the boundaries between two periods which differ markedly cannot be differentiated in a clean-cut way by identifying one year which separates one period from the other. Therefore, the units in the tenth grade course show some overlap. The reasons for the particular sequence in this course are explained in more detail by the staff's historian in the resource units for the course.

Each of the area studies in the eleventh grade course includes considerable attention to the history of that area. This sub-section on history is also arranged in a modified chronological approach, to emphasis both synchronic and diachronic analysis and the concepts of cultural continuity and change. Although some attention is suggested for a brief survey of earlier events, the units call for the study of some one earlier period in detail--synchronically, to see how the cultural assumptions of that age affected all aspects of the society. The era chosen is one prior to a period of marked social change. For example, pupils study Chinese society around 1700 during the early Manchu period, prior to the period of western imperialism and the changes which attended that imperialism. After consideration of this early era, pupils study the history of the area diachronically, focusing upon different changes which took place. In some units, this study may be semi-topical, in some it is more clearly chronological. Again, however, no attempt is made to study all or even the fairly important events during the period covered. This would be impossible within the time limits of the course. Moreover, some of the events would not prove particularly useful in any attempt to focus sharply upon particular changes which help explain the differences between the earlier period and the later period which will be studied synchronically. Following this diachronic study, pupils focus upon a synchronic study of a later period, usually one just prior to drastic changes such as a revolution, an independence movement, or a war which marked the beginnings of the modern society which pupils will study in more detail by asking the kinds of questions political scientists, sociologists, and economists would ask about present-day societies. For example, pupils look at the period prior to the communist revolution in the U.S.S.R., look at the periods just prior to both the nationalist revolution and later the communist revolution in China, and look at the period just prior to independence in India.

The sequence in the history sub-unit on Western Europe is more complicated, since it focuses upon an area made up of a number of countries. This unit suggests a major concentration on the period of the High Middle Ages and then diachronic analysis of first political developments and change and then economic and social developments and change from the period of the Middle Ages to the period just prior to World War I. The major emphasis in each topical study is upon England, France, and Germany, in an attempt to show differences which developed as well as the similar factors which have given these countries enough cultural unity to set them apart from the non-western world. Pupils then turn to a brief study of World War I, a study of Hitler's Germany with some attention to the question of why England and France did not turn to dictatorship in the same period, and finally to a brief study of World War II. The remainder of the area-study includes other sub-units in which pupils study the modern social, economic, and political systems of England, France, and Germany and look at the relationships among these countries and other countries in Europe and their relations with the rest of the world.

Clearly, chronology is used in part as a principle for organization of content and learning experiences, but it is used in modified form and is not followed when goals require a different organization within a unit.

The third course which draws most extensively upon history, the sixth grade course, also uses a modified chronological approach which focuses upon synchronic study of certain eras, with an attempt to analyze those changes which took place between eras and which led to differences from one era to the next. However, the course makes no attempt to cover the entire period of American history nor to cover many of the important developments in the periods which it does treat. The aim of the course is to teach pupils about culture contact and even conflict in American history, about culture change and continuity, and about how Americans took their culture with them as they moved to new places. Therefore, the principle of chronology was not sufficient as an organizing principle. Readers are referred to the Teacher's Guide to the Sixth Grade course for an elaboration of the factors influencing the selection and organization of particular content.

The principle of modified chronology as a basis for determining sequence happened, at times, to be the most useful one for teaching certain ideas about culture change and continuity--concepts which the Center's staff felt highly important and useful in understanding the modern world. This modified type of chronology also serves the end of teaching pupils something about modern historical analysis. However, history, like any other social science, must offer a means of achieving certain goals of general education related to citizenship education if it is to be justified as a part of a required sequence of courses. The principle of sequence, then, is less important than the goals which at some points in the curriculum made this principle of sequencing a useful one.

5. Use of a Cross-Cultural Comparison Principle for Organizing Content

Social scientists are turning more and more to cross-cultural comparisons in their efforts to develop explanatory and predictive generalizations and theories which will not be culture-bound. Interest in other parts of the world has also increased because of the increasing interdependence of the world. Geographers have always been interested in other areas and in comparing cultures and areas to find out how and why they differ from each other.

There is a heavy emphasis upon cross cultural study in this curriculum, although not all courses treat topics cross-culturally or even deal with any culture other than that in the United States. The staff found that certain courses did not lend themselves well to cross-cultural study within one year; however, such courses are contrasted with cross-cultural study when looked at in perspective of a two-year study. For example, the tenth grade American history course focuses upon the United States, even leaving traditional foreign policy issues for study during the next two years. However, this course is followed by an area studies program which permits pupils to draw comparisons between American culture and other cultures and which provides opportunities for testing generalizations to find out if they are culture-bound. On the other hand, many courses provide cross-cultural comparisons within one year. For example, pupils study a non-western culture as well as other cultures in each of the grades from one through four. Grade five includes a study of Latin America as well as of Anglo America, while grade six provides for the study of four Indian cultures in connection with American history.

The seventh grade course includes use of data from other cultures in an attempt to teach basic sociological concepts, although pupils do not study single units on any other culture. In the eighth or ninth grade pupils examine the Middle East and compare the economic, political, and social systems with those in this country. Finally, the twelfth grade course is designed to provide for the study of both domestic and international problems, with topics chosen to provide a comparison with certain problems in other countries for each of the domestic problems studied. For example, pupils focus upon domestic issues related to the balance between security and freedom in unit one. They study similar problems as they examine African countries in a later unit. They study race problems at home and race problems in these same African countries. They look at issues related to promoting economic growth at home and then examine the problems of achieving economic growth in underdeveloped countries.

6. Use of the Part-Whole Principle for Organizing Content

The part-whole principle for organizing content calls for a study of the parts of a broader whole first and then moves on to a study of the whole. Such a principle relates to two different types of things. It can be used for organizing content topics, both within courses and from one course to another, with the purpose of having pupils study different parts of a broad content topic such as the social system or a culture before they look at the system or the culture as a whole. The second way in which this principle can be used is to organize content topics which provide the raw data about a number of incidents, societies, or places from which pupils can develop transferable concepts and generalizations. For example, pupils can study one culture after another and then generalize about similarities and differences among cultures. They can study rainfall patterns in a number of countries and gradually develop a more complete generalization about factors affecting rainfall.

In this second sense, many of the learning experiences within units have been ordered according to a part-whole principle, since this system of ordering content lends itself best to having pupils generalize for themselves. However, pupils may also come to the new data with some generalizations in mind, which they try to apply to a new situation which they see as an example of the broader whole. In this second sense, then, learning experiences do not follow the part-whole principle of ordering content all of the time even within a unit focused upon inquiry.

It is not possible to keep all of the different principles for organizing content completely separated. The part-whole principle is obviously related to the cross-cultural organization used in this curriculum in the sense that it provides data about different cultures and then asks pupils to generalize on the basis of what they have learned about different societies to mankind as a whole or to study different components of the international system before looking at the international system as a whole in grade twelve.

The part-whole principle has also been combined with the simple to complex principle used in organizing content throughout grades one through four. Children study one institution, then add another, and finally look at cultures as a whole at the end of grade four.

The sequencing of courses in grades seven through ten is also based to a degree on the part-whole principle. In grade seven pupils study the social system without analyzing the political and economic systems which are a part of the total whole. They then study the political and economic systems in grades eight and nine. Finally, in grade ten they see how all three are integrated by the cultural assumptions of a period.

7. Use of a Problems-Approach As a Principle for Organizing Content

The goal of developing skill in using inquiry methods, the strategy of using an inquiry approach to learning, the decision to include many topics related to public controversies involving value-judgements all combined to make a problems-approach to content organization appropriate at some points in the curriculum. Such an approach has been used in organizing the content within most units focused upon topics related to societal or personal problems which involve both making value choices and using social science analysis in selecting from among alternative courses of action. This section, then, is focused upon a principle for ordering content within a unit. The discussion which follows should not obscure the fact that inquiry and problem solving are and should be involved in an analysis of purely intellectual problems which do not require the selection of alternatives related to value judgements. To facilitate such problem solving or inquiry upon the part of pupils also requires an ordering of content and learning experiences,but this ordering may relate to only a single lesson or a few lessons, not to the overall organization of a unit or a major section within that unit.

The problems-approach principle for organizing content as defined here calls for moving from a study and definition of the problem, to a study of the causes of the problem, to a study of alternative courses of action which might be taken. Setting up such a sequence for the study of content does not guarantee that the unit will involve real problem solving on the part of the pupils. A teacher could lead students from one step to another. He might give them no opportunity to set up hypotheses about causes of the problem, figure out ways of testing such hypotheses, gather data to test them, suggest alternative courses of action in the light of what they now know about the causes, set up hypotheses about the probable effects of each alternative, check these hypotheses against available data on how such alternatives have worked in the past or against other data which might be collected, and then make at least a tentative choice from among these alternatives. Some resource units in this curriculum have been organized to promote such an inquiry process either during an entire unit or during a major part of it. However, the ordering of content in terms of a problems approach only facilitates the use of learning experiences which involve real inquiry by pupils. At times, moreover, the content within a resource unit is organized in this problems-approach but teaching procedures suggest considerable help by the teacher at various stages of the analysis. The organizational structure of content within the unit makes it easy for a teacher to give pupils much more problem-solving independence than called for in the procedures if he considers them capable of the task, given the particular problem under study.

No course in the curriculum is organized completely around this problems-approach to sequencing content. However, several of the courses include units within which content is organized in this fashion, either throughout the entire unit, which might then be called a problem-centered unit, or throughout a major section of the unit. For example, the units in the ninth grade on The Farm Problem and on Poverty are problem-centered units. So, too, are many of the units at the twelfth grade level. Each of the twelfth grade units involves value conflicts and policy decisions, but some of the units are not organized so that pupils follow the problem-solving process described above completely. For example, the unit on the Good Life raises value conflicts and poses alternatives but is not organized strictly according to the sequence of problem, causes, and alternatives. The area study on Africa South of the Sahara, like the earlier area studies, raises questions of policy alternatives to begin with and returns to an analysis of alternatives at the end, but does not follow the other ordering of content in the way described above. The unit on local decision-making at the eighth grade level includes some introductory material and then suggests that pupils select some problem in the local area for study. The last part of this unit should follow the problems approach described here. The seventh grade unit on intergroup relations orders the content around a problems approach, but the teacher plays more of a role than in later grade levels in guiding pupils through each stage. Moreover, less attention is paid to setting up hypotheses about causes and about probable consequences of alternatives than in a complete problems-analysis experience.

Other units in the curriculum include sections within which content is organized in terms of a problems approach. For example, the tenth grade unit on the consumption economy includes a lengthy section on the effects of the great depression of the 1930's, then turns to an analysis of the causes of the depression and of fluctuations in business, and moves on to discussion of alternative approaches used by the

Hoover and Roosevelt administrations, grouped according to types of policies, and to a discussion of the pros and cons of such policies. However, pupils do not themselves engage in all of the actual problem-solving steps suggested above, partly because of the difficulty of the topic unless the teacher provides considerable guidance.

This staff, then, makes a distinction between units in which pupils actively engage in all of the processes involved in problem-solving themselves in connection with a unit focused upon societal or personal problems and units organized in terms of a problems-approach sequence of content. They also distinguish between units which are built entirely around a problems approach to ordering content dealing with a problem involving a value-conflict and those which involve only some sections in which this principle for organizing content is used.

8. Relationship of the Use of an Inquiry Teaching Strategy to the Internal Sequencing of Units

The decision to use an inquiry approach obviously affects the internal sequence of learning activities and content within units. An analysis of the sub-unit on geography in the eleventh grade unit on the U.S.S.R. may help clarify this point. The approach used is to have pupils study a physical map of the U.S.S.R. and set up hypotheses about a variety of features. They do so by applying previously-learned concepts, generalizations, and skills. Although it might seem wise to let them test different hypotheses about each feature before they go on to setting up new hypotheses, to let them use maps to do so would give them further data than is desired at the moment before they set up hypotheses about other features. Once pupils have set up a series of hypotheses about many factors, they do proceed to test them against maps, tables, and other kinds of data. This means that the logical organization of content, with no duplication or returning to the same topics, cannot be set up parallel to a series of teaching procedures arranged in the order in which they are to be taught. Pupils must set up hypotheses on one topic, then on another topic, and so on; they later return to a careful testing of hypotheses and so to the first topic again.

An examination of the case study on the Executive Process in the eighth grade illustrates the same point. The first long case study is designed to get pupils to generalize tentatively about factors affecting and limiting executive decision-making. Pupils then use these tentative generalizations as hypotheses to be tested in more detail as they examine the next case study, and so on through all of the case studies. They test and modify and add to their original model of factors affecting decision-making. Consequently, two outlines of content are provided for this unit. One shows the logical organization of ideas within the unit and indicates the data from case studies and other sources which may be used to teach these ideas. The second, which is the outline to be followed in teaching the unit, merely refers to the topics to be taken up next, topics which overlap in terms of generalizations to be developed.

Since an inquiry process is used and pupils are encouraged to hypothesize, test, generalize, apply the generalization to new situations, set up new hypotheses, etc., it is impossible to apply any scramble test to a list of objectives as one project has proposed. The same generalizations, concepts and skills will appear a number of times within any one unit and will appear in a number of units. The logical organization of such generalizations and concepts comes in the mind of the learner as he progresses through the course.

9. Varied Course Designs

Given different course content and goals, it is unlikely that exactly the same combination of unit organizations will be appropriate for many courses; some may not be appropriate for more than one course. The elementary school courses in this Center's curriculum do not include units focused upon public controversy and organized around a problems approach. They include far fewer units in which the content within one section is organized according to this principle. Moreover, there are more courses which are organized internally according to the cross-cultural pattern.

The junior high school courses all focus upon the behavioral sciences, but no two have exactly the same combination of unit types. The seventh grade course is organized primarily around topical units organized logically to teach the main ideas of sociology. However, the last unit focuses upon a societal problem and the content is organized around a problems approach. The eighth grade course also uses some logically-organized topical units within a broader whole-part sequence. Moreover, it includes one unit in which pupils are to identify and study some local societal problem. Several of the other units have sections within them which are organized around a problems-approach. This would be true, for example, of the unit on political parties and elections. The ninth grade course, on the other hand, provides for two problem-solving units in addition to using a modification of a whole-part sequencing principle. Both the eighth grade and the ninth grade courses are modified even more by including an area study on the Middle East in non-election years, even though the major focus in this unit is on a comparison with the topics studied that year in American society.

Each of the senior high courses also varies in course design. The units in the tenth grade course are organized primarily around a modified chronological approach, but provision is made within a number of units for the study of societal problems. In addition, a major portion of one unit follows a problems approach in ordering content. The eleventh grade course, which is completely interdisciplinary and focuses upon area studies has more similarity from one unit to another than any of the other courses at the secondary level. Several principles of sequencing are used within each unit, since these units draw upon the different social science disciplines. Moreover, a major focus in each unit is upon U.S. policy issues related to that area of the world. The twelfth grade course includes more units in which content is organized according to a problems approach, but it, too, includes one area study and a unit on the Good Life which is sequenced differently.

These varied course designs seemed appropriate to teaching the content selected for study by pupils at each grade level. They were chosen to achieve specific goals. Moreover, different approaches were designed to provide pupils with different kinds of experiences with ways of learning and organizing data.

Providing for Adaptation of the Curriculum Design and Curriculum Materials to Fit the Particular Needs of Local Communities and Classes and to Cope with Change in the Modern World and in the Social Sciences

Provisions for adaptation and change in a curriculum need to be examined both in terms of possibilities for substituting topics for those included in the curricular design and in terms of the tightness or rigidity of the structure of curriculum materials prepared for teachers and pupils. The degree of rigidity affects the ease of adapting the curriculum to different communities, different pupils, and to changes within the social sciences and in the society at large.

1. Tightness of Structure

One of the very real issues in social studies curriculum circles today focuses upon the question of how tight or rigid the structure of materials for teachers and pupils should be. At least three sub-questions can be identified.

(1) Should the Curriculum Center suggest a highly structured set of activities to be followed by each teacher, without suggested alternative ways of achieving the same goals? Or should the Center provide resource units with a number of suggested activities from which teachers are to choose and to which they are encouraged to add?

(2) Should the Curriculum Center provide or suggest varied reading materials and activities for individuals and small groups from which some choice can be made, or should it suggest that all pupils do the same activities and read the same things most or all of the time?

(3) Should the Curriculum Center provide all or most of the reading and audio-visual materials to be used in the program?

Some curriculum centers have provided highly structured materials for both teacher and pupils. Fenton suggests that to develop cognitive skills, curriculum makers must build in "continued practice...by specifying one activity, not by providing a choice of several."[3] Mehlinger describes the assumptions of the Indiana Government project as follows:

> The assumptions upon which we are working are diametrically opposed to those that are used to defend resource units. Rather than suggest a variety of approaches that could be used to teach a concept and list dozens of resources that are available that might contribute to the development of the concept, we will describe one approach to be used and provide the resources that are required for it to succeed.[4]

---

[3] Edwin Fenton, The New Social Studies (New York: Holt, Rinehart and Winston, Inc., 1967), p. 16.

[4] Howard D. Mehlinger, "The Study of American Political Behavior." An Occasional Paper from the High School Curriculum Center in Government, (Bloomington: Indiana University, Dec., 1967), p. 23.

However, Mehlinger also adds:

> Each classroom teacher must make critical decisions every day in order to make the package fit his students, his time schedule, and so on. These are decisions only individual teachers can make. Nevertheless, their decision will be more rational if they are completely aware of what the course is to accomplish. It is impractical, even foolish, to argue that every teacher should develop his own course of study from his own resources.[5]

The Minnesota Curriculum Center has taken an opposite position. It has provided resource units which suggest varied activities from which teachers are to chose in terms of a specific class and community situation. It suggests varied reading materials and activities for small groups and individuals. Moreover, it does not provide all of the materials suggested for a unit. Although it has developed some pupil materials of its own and suggested specific materials, it depends heavily upon materials available from other sources. It also recommends that teachers add to the suggested materials as new materials become available.

The Center's position on this issue is based upon the following assumptions:

(1) There are great differences among pupils in terms of motivation, pattern of interests, reading ability, other abilities, personality patterns, and even cognitive styles. Although these pupils have many things in common and can work with some common materials, provision must be made to handle individual differences by providing considerable choice from among materials of different reading levels and different types of appeals and by providing varied types of individual and small group activities to complement the work done in common by the class.

(2) Classes differ from one community to another and within the same school. Teachers need suggestions and encouragement to adapt materials to different classes.

(3) There is a need to develop varied skills. Not all skill objectives can be achieved if pupils are given all mate-

---

[5] Ibid., p. 24.

rials. For example, pupils need to learn to locate sources of information and to use specialized references. They need to learn to distinguish relevant data from irrelevant data and so need at times to find their own materials which have not been chosen for them because of their relevancy. Pupils need to learn to evaluate all kinds of materials in terms of the competency and bias of authors, consistency, completeness of data, etc. This means that they should examine materials presenting very different points of view--preferably, at the senior high level, the kinds of materials which become available for popular consumption upon controversial questions.

(4) Units designed to have pupils analyze controversial problems by identifying the problem, studying the ramifications of the problem more thoroughly, identifying causes of the problem, considering possible consequences of alternative courses of action, and selecting a course of action cannot be structured rigidly. Such units must be written to provide even greater flexibility than units which are aimed at developing non-normative ideas.

(5) There is danger of indoctrination toward particular points of view if the Center provides all of the materials on highly controversial questions or on issues involving conflicting interpretations, or even if it suggests specific materials prepared by others without encouraging teachers to add other materials and have pupils seek out materials on their own. A center may attempt to provide a balanced treatment, but dangers of bias are alieviated by encouraging a wide use of varied materials on any controversial topic. This does not mean that for some less controversial topics and at earlier levels in the curriculum the center should not provide fewer, shorter, and more structured materials.

(6) Materials provided by any curriculum center, particularly those dealing with controversial issues, may become dated quickly. Teachers should be encouraged to add new materials which provide current examples of issues or concepts being studied or which provide new interpretations. The social sciences are changing so rapidly that no curriculum center, funded for a specified number of years, can hope to keep its curriculum up-to-date either in terms of new knowledge in the social sciences or of new developments in the world. Ideally, a curriculum center would be able to secure funds to up-date its curriculum at frequent intervals and so provide help to teachers. However, such a

program is not realistic for most existing centers.

(7) The success of any curriculum depends upon the ability of the teacher. Even a tightly-structured curriculum can prove unsuccessful in the hands of a poor teacher. Teachers lack time and resources to develop the basic features of a sequenced program and so can be aided greatly by the provision of curriculum materials by curriculum centers. However, they can add many creative ideas. Moreover, they must adjust any program to a particular class if it is to be successful. Those who favor tightly-structured materials assume a very low level of competence among teachers. This Center recognizes that some teachers will not handle its materials effectively; some will not follow suggested criteria for adapting them to classes nor will they follow the other suggestions in the teaching guides for making adaptations. (See, for example, pp. 20-23 of the eighth grade guide.) However, such teachers are also likely to turn highly creative, structured courses into uninspired lessons. This Center takes the position that teachers can use help but that no curriculum can be made teacherproof against poor teachers and that a curriculum too tightly structured loses the many advantages to be gained from the professional skill and creativeness of classroom teachers. The experiences of many of our staff members over the years, both as classroom teachers themselves and in working with classroom teachers, have led the staff to this position. Staff members believe, however, that research is needed to find out: (a) whether loosely-structured curriculum materials or more tightly-structured materials raise teaching competency more in the short run and in the long run; and (b) whether one type is more appropriate than the other for teachers with particular personality patterns.

2. Providing a Framework to Ease Adaptation to Changes in Society

The courses in this curriculum have been built to provide many places in which changes can be made in light of new developments and problems in the world within the same overall structure. For example, the case studies used in the eighth grade to teach pupils about the legislative, executive, and judicial processes can be changed without changing the basic framework of the course. Indeed these cases probably should be changed from time to time to use more current examples, even though the topics treated such as civil rights, foreign policy issues, and civil liberties issues are likely to be of such continuing importance that the cases may well be chosen to continue to teach pupils about these topics as well as about processes of political decision-making. However, the general type of societal problem area could also be shifted. Moreover, the last unit in the eighth grade course calls for the study of some local, current problem. This problem will change as times change.

The present seventh grade course focuses upon sociology. It builds upon what pupils have learned in earlier grades by approaching the field in new ways. However, it also spends more time teaching certain sociological concepts in the earlier units than will be necessary when the curriculum has been in operation long enough for seventh grade pupils to have come through many of the earlier grades. The teachers' guide suggests that when that time comes, the teacher may wish to reduce the time spent on the earlier units and add another problems unit. The importance of this suggestion is highlighted by the course evaluation reported in appendix #1 which found that pupils did not always apply previously-learned concepts to the analysis of emotionally-toned problems.

The ninth grade course also lends itself to change in the light of changing economic problems. The unit on poverty could be shortened or even deleted if other problems became more crucial. Moreover, the unit on the farm problem could be dropped in favor of another problem which could be used to illustrate some of the same major concepts.

The area studies course could be changed easily with differing emphases within existing units, with the substitution of one or more different areas in the light of changes in the world situation, or with change in the order of units so that pupils can study an area at the time of any world crisis situation. Emphasis within each area study is likely to change somewhat in the light of new developments and different policy issues confronting the United States.

The twelfth grade course lends itself easily to modification within the basic overall framework of "Value Conflicts and Policy Decisions." Teachers should make certain that they do not duplicate unit topics studied earlier, but new units might be substituted for several of those now taught if these become of less importance than some other problems facing the country and world.

It is not so easy to see at first glance how the elementary curriculum can be changed in the light of new developments. However, actually such change would be relatively easy. Differerent families and communities can be studied so long as the teacher makes sure that they are not introducing new duplication and that they are selecting cultures for study which develop some of the stated goals of the courses. More attention could be given to some of the urban problems facing large cities in some of the case studies in the fifth grade course. Or different case studies could be selected for study. Another large urban or even ghetto community could be studied in terms of community relationships in the third grade in substitution for one of the other units studied.

3. Adaptation to Local Communities

The curricular framework also permits considerable adaptation to local communities. First grade teachers in states other than Minnesota are urged to substitute an Indian group of importance in their local area for the Chippewa family studied by Minnesota children. Furthermore, it would be perfectly possible for communities to substitute other colonial families for that of Boston in the second grade course or even a frontier family in their own area in a slightly later period. The recommended selection of case studies on the West in the fifth grade course is dependent upon where the course is being used. Teachers are urged to develop a case study for their local area, either in lieu of or in addition to the case study already prepared for their region. The use of the local community as a vehicle to teach pupils about various institutions in grade three and four again permits extensive adaptation from one community to another and from one neighborhood area of a large city to another. Moreover, state history can be introduced in many communities during the study of one of the units on westward expansion in the sixth grade.

Both the elementary and secondary grade courses lend themselves to the use of local community resources such as museums and resource people who might serve as speakers or be interviewed in the community, and many of them call for the use of local examples. Some suggestions are already included for the use of resource people at most of the secondary grade levels. Units related to intergroup relations in grade seven, poverty in grade nine, farm problems in grade nine in communities close to or in farming areas, the section on the depression and more recent recessions in the last unit in grade ten, and the unit on Race Conflict in grade twelve all need to be made more relevant by showing how these topics affect the people in the local community. Moreover, the eighth grade course calls for the study of local examples in each of the units on political parties and elections, the executive process, the legislative process, and the judicial process. The last unit in the eighth grade focuses upon problems of local decision-making and calls for the study of some problem of particular importance in the local community.

Conclusions

Looked at as whole, this curriculum provides a model to illustrate how multiple criteria for the selection of content, multiple principles for the organization of content and learning experiences, and different teaching strategies can be combined to achieve multiple goals with pupils of varied interests, abilities, cognitive styles, and personality patterns in different communities while at the same time providing for change in the light of new developments in the world and in the social sciences. The staff recognizes fully, that other curriculum designs might prove equally or more satisfactory in achieving the goals identified by this Center. Moreover, this design would not be as effective as others if different goals were identified for the program. It might also be less effective with particular groups of pupils at selected ability levels or of a particular type of background, than a curriculum designed specificially for them. However, the model of how a K-12 curriculum might be built to achieve varied goals may prove helpful to those who wish to develop their own curriculum to suit a particular group of students. Given similar goals, moreover, it might provide the basic framework which could be adapted to particular situations. If nothing else, a careful analysis of this framework and the decisions which had to be reached and then applied in the process of its development should serve to illustrate the grave difficulties and the massive efforts and financial support needed by any group undertaking a similar K-12 curriculum development project which aims at more than just a reshuffling of old courses.

CHAPTER FOUR: EVALUATION FINDINGS

Since the project conducted by the Minnesota Curriculum Center has been concerned with curriculum development, the final report on the project has focused upon an analysis of the curriculum development process and the curriculum itself. However, not all evaluation has been postponed until the completion of the developmental stage. Part of the developmental phase itself involves evaluation of the curriculum materials so that they can be revised and made more effective. Moreover, any Center knowing that an implementation task lies ahead is likely to make some efforts to evaluate ways of working with teachers on the new curriculum materials in order to gain data to facilitate implementation at a later time.

The Center has carried on three different kinds of evaluation. First, during the initial tryout of materials, staff members have collected data from teachers through the use of weekly written report forms, regular visits to classrooms with follow-up discussions with the teachers, and at least three full-day meetings of all teachers working with materials at one grade level. Some staff members were able to continue a few group meetings and observations during the second year of field testing also. Several of the sessions were taped to provide a further record of teachers' reactions. Teachers' suggestions were used in revising the materials. Second, help was obtained from a graduate student and from the Minnesota National Laboratory to evaluate several of the courses using funds other than those available to the Center. Finally, two questionnaire studies were conducted to evaluate two different approaches to implementing the program in schools. All of these findings are reported in this chapter, and the two more elaborate studies of courses are reported in full in appendix one and appendix two.

The Center does not consider the evaluation of its materials complete. Indeed, it feels that the task has just begun and that, given the nature of the project, this evaluation must continue for some years to come if it is to assess the impact of a K-12 program designed to provide greater continuity and sequence than that found in most traditional programs. Most of the research has had to wait until after the completion of the developmental stage.

Evaluation of Curriculum Materials

A curriculum center which develops a drastically new curriculum faces many difficulties in evaluating the curriculum materials. First, there is little point in evaluating a new course against an old one if the subject matter content and goals differ greatly. The more traditional courses can be used as control classes, however, insofar as they are different enough in content to warrant the assumption that change in pupils in the control classes result from either maturation or events which would be likely to affect both control and experimental classes alike. Second, it is difficult to persuade public schools to randomize classes for experimental purposes. Third, until the curriculum has been tried out for several years, it is difficult to evaluate the new program, since teachers need to learn both the new content and the new approaches to teaching. Fourth, it is difficult to persuade teachers to handle both control and experimental classes in order to control personality and teaching ability, since to do so involves a heavier preparation load.

Even if a new course is similar in terms of the general subject area covered, evaluation is difficult. Attempts to evaluate courses which are quite similar to old ones in general content area face some of the same problems of research design as those faced in attempts to evaluate new courses in the public schools. Moreover, existing tests were prepared to measure the progress of individual pupils; items designed for this purpose may not be the most appropriate ones to evaluate the effectiveness of curriculum materials against goals of the program.[1] Existing tests also evaluate achievement in terms of goals which are quite unlike those thought important by the curriculum developers; they may test achievement on content which social scientists now consider either outmoded or unimportant. To develop a good evaluation instrument takes several years and the funds needed to hire specialists in test construction. This Center has suffered from both lack of funds to hire such an expert and time to develop good evaluation instruments after the courses have been developed and revised. However, the Center has attempted to obtain some evaluation results other than those which are based only on teacher evaluation or staff observations.

Evaluation of the Seventh Grade Course on Man and Society

Since many people on the staff and in other educational circles considered the Center's seventh grade course its most drastic innovation in terms of grade placement, it seemed wise to focus the greatest effort upon evaluating this course. It was thought more important to work out several different types of evaluation and experiment with a new prototype of evaluation than to scatter efforts more superficially over a wider range of courses. The research design and research instruments used in this evaluation are described in appendix one. It should be noted that one of the evaluation devices is an unusual one aimed at finding out the extent to which pupils learn to relate different concepts, that is the kind of structure of concepts they develop as compared to those of teachers using the course.

---

[1] For an analysis of the differences in test construction for evaluation of courses as against evaluation of pupil achievement, see Robert E. Stake, "Toward a Technology for the Evaluation of Educational Programs," in Ralph W. Tyler, Robert M. Gagné, and Michael Scriven, eds. Perspectives of Curriculum Evaluation (Chicago: Rand McNally Company, 1967), pp. 5-6.

The major conclusions of this study, as summarized by the research director, William E. Gardner, are reprinted below to facilitate discussion of them.

1. The course had very powerful effects on both boys and girls and, with some exceptions, on all intelligence levels, and "Man and Culture" can be classified as a successful endeavor. There can be little doubt that students are able to learn major ideas, principles, and concepts from sociology through the use of these materials, at least to the extent that such knowledge was measured by the instruments employed. True, the basis for this conclusion is a comparison made between classes which studied the course and those which did not. Nonetheless, it is perfectly obvious that the achievement of the E classes was due to the course and not to variables in the common environment of all seventh graders.

   Consequently, there is no need to postpone behavioral science instruction until students reach late adolescence on the grounds that the material is too complex to permit understanding to develop earlier.

2. The study provided no significant information regarding the parts of the course which were most effective with students. The data indicated that content related to socialization was learned most well by students, but the reasons for this were unclear. The best general conclusion is that all of the content from sociology, as represented by the course, can be learned by seventh grade students.

3. Since legitimate questions were raised regarding the validity of the Values Test, one cannot conclude that the course alters the value system of those who study it. However, the magnitude of the differences between E and C classes on this measure again demonstrate the powerful effects of the course, even though the test may have measured cognitive rather than affective learning.

4. The bulk of the word association data has yet to be analyzed completely and only the most tentative conclusions are possible regarding the ways in which students develop a psychological structure for sociology. Yet it seems clear that in the classes examined and reported in this study, one effect of learning sociology was to see relationships between and among key concepts. The precise nature of the configuration of the links that developed between concepts may be more related to the way the teacher sees sociology than to the structure implicit in the materials themselves.

5. The study also yielded information as to the ways in which the course could be improved which were not evident when feedback information was acquired from teachers and students. (a) While all intelligence levels were generally affected by the course, there is evidence that differences are not great between lower level E and C students. Course developers should give attention to building learning activities designed for lower ability students. (b) Exceptionally careful attention should be paid by teachers and developers to the problem revealed in the analysis of the Values Test. Specifically, the data suggest that students can use concepts related to the social basis of human behavior in situations unrelated to major societal problems, but that they have difficulty in using the same concepts in the interpretation of serious current issues, particularly those involving race. The "unrelated" situations stressed in the course were included to provide a context for introducing the concepts. It would be unfortunate if teachers assumed that automatic transfer would take place when societal issues are confronted. The data, of course, only suggest that inadequate provision is made for using sociological knowledge in the analysis of truly vital concerns, but the mere suggestion is important enough to warrant a reexamination of the materials and teaching strategies to insure that students are given the opportunity for such analysis.

6. The changes noted within the C group (gains from pre to post on the Content Test, differences in verbal behavior from pre to post) indicate that some of the course content is present in the environment of all seventh grade students. These results may mean that seventh graders generally are becoming more aware of their social environment as maturation occurs and that they are attempting to make "sense" out of it. As a result of this process they "learn" some of the ideas from sociology. Theoretically at least, the existence

> of what could be termed sociological knowledge in the common environment of seventh graders constitute a justification for teaching the course at this level, in that students are faced with the task of ordering and making sense out of the social world around them and this, after all, is what the course is designed to do.

Gardner's other recommendations about further research needed on this course are presented in the conclusions of his report (see pages 281-282).

Two additional points should be made in connection with conclusion number five. First, those developing the curriculum recognized from the beginning of work on the course that more materials of an easier level would be needed in the long run if the course were to be taught for any length of time. A minimum number of materials was developed initially, mostly in the form of adapted readings, to try to find out something about the appropriateness of the concepts and content for pupils at this age level before time and money were spent on developing additional materials.

Reactions of teachers in writing and orally also seem to indicate that although pupils of lower ability levels do not do nearly as well in learning the concepts and generalizations as do higher ability pupils, their interest in the course is greater than in other courses which teachers have taught at the seventh grade level. Research is needed to find out whether or not this impression on the part of teachers is true. Moreover, once additional materials have been developed for the lower ability pupils, additional research would be warranted to find out how well these materials meet the learning needs of such students.

Second, the problem of evaluation, as Gardner points out on pp.236-237, is complicated by the decision of this Center to provide teachers with less highly structured materials than most centers are preparing. Teachers have been urged to select from resource units and to add their own ideas. Moreover, in the first years of tryout, teachers have not always completed the units suggested for the course; since the course is built upon concepts and skills developed in earlier courses, teachers must take much more time teaching some of the earlier units than will be necessary when pupils have studied the previous courses. Unfortunately, the unit which teachers tended to neglect is the last one which deals with the problem area of intergroup relations. Much of the values test designed to evaluate this course was focused upon attitudes related to minority group relations. Consequently, test results do not present a clear picture of how the course will affect attitudes once teachers have really taught this unit.

Most of the teachers have reported that several years of experience teaching the course have enabled them to do a better job of selection from among suggested activities; therefore, they moved more rapidly through the course and spent more time on the last unit. It would be interesting to do further evaluation of attitudes related to minority group relations with teachers who have had at least two years of experience teaching the course and whose pupils have come through several of the earlier courses developed by the Center.

Despite these shortcomings of the research, the findings presented in Gardner's fifth conclusion do suggest both the need for developing additional materials at an easier level for some pupils and possibly the eventual modification of the course, once the pupils have come through the elementary program, by adding another problem area for study. Efforts on the first task have begun by some of the staff members, working on their own time. Publishers interested in such a course should keep this research finding in mind.

The fourth conclusion is related to another problem which this and other centers have faced, that of in-service training for those teaching the courses. Since the teachers working with this Center's materials have more freedom to adapt materials than those using some programs, shortcomings in their background in content areas may prove more of a handicap than in some other projects, at least in the early years in which the program is used.

As Gardner points out in his research report, the earliest kinds of evaluation of the seventh grade materials were more subjective. Teachers wrote weekly reports, Gardner visited teachers' classes, and he held five all-day sessions with all of the teachers using the course. Teachers' suggestions for changes and additions were used in revising the course. The teachers' subjective evaluations of the material and pupils' responses to the material led the staff to believe that the material in the course was proving of interest to the pupils at that level.

Seventh grade teachers involved in the more recent in-service training program to use courses developed by the Center took part in the questionnaire study reported later in this chapter. They were asked whether or not they would like to teach the course again and, if so, why. Thirteen of the fourteen teachers replied "yes." One answered with a question mark, although indicating that he would use more of an inquiry approach in any course he might teach in the future. Reasons for wishing to teach the course range from enthusiastic responses to those which state that a teacher would like to try the course again without much indication of whether or not he really liked the course. The responses are given in full below to illustrate some of the kinds of subjective data collected on this and other courses.

Question: Would you like to teach P.S.S. courses next year? Why?

Answers: Yes - 13; ? - 1

Comments:

? No reason cited. This person says in an answer to another question that he would use more of an inquiry approach if he were to teach the course he taught earlier again.

"Yes, I feel more involved."

"Yes, except I will be on a year's leave of absence."

"Yes. Having stumbled through the material once I would like to have a second chance."

"Yes. I don't feel I can do justice to any course in just one year. I think it is much better than the American history."

"Yes. I would like to give it one more try before I make a decision as to which course should be taught at grade seven." This person also says, in response to another question, that if he were to go back to teaching the old course once more he would hope to use the inquiry approach more than before.

"Yes, and we will be, for a number of reasons. We like the course (subject material), with some modifications (which a second year would make possible.) Secondly, I'm anxious to do a better job with a course that has more to offer than we've been able to give to it the first time through. I'm anxious to see if it's the course, the kids, the refreshing change of something new, etc. that made a difference. I'm also anxious to have a class which has had one year of project background. Basically--I like it!"

"Yes. It's an improvement."

"Yes. I feel the subject matter is much more interesting to students."

"Yes. I feel the students related sociology to themselves very well. The students involve themselves. We learn from the familiar."

> "Yes. I think it is a definite improvement over what exists in many older curriculum."
>
> "Yes. It works. Kids really don't care about early American history. Some don't care much about sociology, but the percentage is lower. I think in the long run it will do them a great deal more good, particularly at this age level."
>
> "Absolutely. It is the most relevant, interesting, and justifiable course for the junior high I have yet encountered."
>
> "Definitely! I wouldn't teach anything else. The kids are so enthusiastic and so am I. The subject material, the techniques, etc. are fantastic."

Two points are apparent from an examination of such comments. First, some of the teachers believe strongly that the course is particularly relevant for pupils at this age level. Since some did not comment on this point, it would be useful to use a follow-up questionnaire another year to ask teachers to respond "yes" or "no" to a question on whether they think the course is more interesting to pupils than the course they taught earlier. Second, some of the teachers found that they stumbled around a good deal during the initial year of working with the course but think they have learned now how they could do better. This reaction is a fairly typical one from teachers with whom the Center has worked. Possible reasons for it are analyzed on pages 196-197 in connection with a discussion of such reactions among teachers at other levels.

Evaluation of Primary Grade Materials

1. Content Analysis of Group Interviews with Children

The major evaluation done so far with primary grade pupils has been carried out by a graduate student, under the direction of Dr. Everett T. Keach, Jr., and is reported in full in appendix two. The research design of the study and the use of the group interview and content analysis of transcriptions as an evaluation device are described in the full report. The conclusions which Miss Berg drew are presented only briefly here.

1. The pupils in classes using the Center's curricular materials made a significantly larger number of responses noting similarities between themselves and the peoples of other cultures than did children in other classes in the same schools.

2. There were no significant differences in the number of responses noting differences between themselves and other peoples of the world.

3. Children in the classes using the Center's curriculum made significantly more responses noting differences in environmental use.

4. Children in the classes using the Center's curriculum made a significantly larger number of responses calling attention to the fact that ways of living are learned.

5. Children in the classes using the Center's curriculum made comments noting differences in skin color later during the course of interviews than did those not studying these courses.

6. "Rather ambiguous results were obtained from the data relating to the question "Do children at the primary level understand cultural change?" The raw numbers indicate relatively few responses relevant to this category. The percentage, however, shows the Project groups in a more favorable light, although the difference is not statistically significant. It would seem that a number of things may have occurred: Children at this age may not be able to comprehend principles of cultural change, the Project materials stressing this idea may not have been dramatic enough for this age group, or the study may not really have assessed this area."

This study was carried out primarily to find out how a group interview technique might be used in a more careful evaluation of materials at a later date. This pilot study has provided not only some initial findings about the materials themselves but has given the staff some indication of modifications of the evaluation technique which might be made in any future study of this type. A larger sample had been planned to make possible a separate analysis of responses at each different grade level. However, one of the pilot school systems had moved ahead to have all teachers in one building use some of the Center's units. This meant that the children in these schools could not be used in the study. In any future study, analysis of interviews by grade level in experimental and control classes would tell the staff more about the impact of each course. Moreover, if children in the experimental classes who had had previous experiences with the Center's courses could be identified in terms of the number of years within the program, it would be possible to study the impact of a two or three year sequence of courses.

This group interview technique also suffers from one other handicap in attempting to obtain data on one question used in the study. Children were asked: "Would you like to spend some time with the people in this picture?" There were positive responses in each of the experimental and control groups, but there was no way to analyze the total number of children in experimental and control groups who responded positively. In many of the interviews, children answered at the same time; in no group did each child answer this question. It might be possible with third grade children to conduct the group interview up to the point of this question and then ask each child to answer that question in writing and to give a reason for his answer. The data from the original study indicate that some positive responses may be due to an interest in the physical environment rather than in the people. Moreover, content analysis of responses might be used to find out different attitudes toward diversity, both of which might lead to an interest in spending some time with these people. Some of these statements may indicate acceptance of diversity, but others may suggest only curiosity about that which is different or thought strange. Further analysis of the dialogues or of transcripts of future interviews would be interesting. When skin color is mentioned, it may be just noted, or it may be accompanied by words which imply a dislike for different colored skin, as in the comment by one of the children not in the project classes, "I think he's too dark." Moreover, it would be more useful to analyze the data for a larger number of children to distinguish between the number of responses about skin color following the first question, "What do you see" as compared to the number following the later question, "Can you think of any ways in which we are not like the person in the picture?"

The sixth finding in the study has been used by the staff in revising materials. Miss Berg suggested that a number of factors might account for the apparent failure of the courses to lead to significant differences in the number of responses related to the concept of change. It may well be true that the medium used to solicit comments may not lend itself to eliciting comments about change, even though pupils may understand that cultures change, sometimes slowly and sometimes dramatically. The following questions were used: "What do you see in this picture?" "Can you think of some ways in which we're like the person in the picture?" Can you think of any ways in which we are not like the person in the picture?" "If you had a chance would you like to spend some time with the person in this picture?" Such questions are not too likely, when used with still pictures, to elicit ideas about change. Indeed, it is rather interesting that children suggested as frequently as they did that the ways these people live might change. Some other question or evaluation device may be needed. A study is needed, moreover, to analyze the data on this concept by grade level to find out which courses seem to do the poorest job in teaching the concept of change. Such analysis might also give staff members a better idea of whether or not the concept is not learned (if it is really not learned) because of the materials or because of the maturation level of children. However, although maturation level and the type of evaluation device may account for the findings in this study, it is perfectly possible that additional materials and learning activities within some of the units might prove helpful. Several of the units have been revised to dramatize change more clearly. If future research still indicates that children do not seem to learn the concept of change as a result of these revised materials, that concept might be omitted from some of the earlier courses.

2. Teachers' Reactions to the Primary Grade Courses

In addition to the weekly reports and oral feedback obtained from teachers during the first year of field tryout of each course, several other kinds of data are available to the Center about how teachers react to the materials. In the questionnaire study of teachers who took part in the local inservice training program, teachers were asked, after they had taught the courses for a little over seven months, if they would like to teach the course again the next year. All of the kindergarten, second, and third grade teachers answered, "yes." One of the ten first grade teachers said "No," and added, "not experienced enough." On the other hand, during the first year of tryout, two of the kindergarten teachers expressed doubts about the course and after several years one of the teachers in the original group stopped teaching the second grade course.

The Chelmsford questionnaire also provides some data on the reactions of primary grade teachers to their experience of teaching one unit at each of their grade levels. All of the first grade teachers thought the unit more effective than the course which they had taught the previous year and all said they would like to see Chelmsford adopt the course on a field test basis. All but two of the sixteen teachers at the second grade level found the unit more effective. Fourteen said they would like to have Chelmsford adopt the course for a field test program, two said it was impossible to compare the old course with this unit because they were so different. One teacher who did not say that she would like to adopt the course replied: "In comparison to last year's social studies program, I would prefer this program but I do not feel that I can wholeheartedly endorse this program without further experience with the entire program." The other who did not favor adoption of the course had taught the unit on the Soviet family and said: "It's an interesting unit, but too many concepts involved for these young minds. I think we should have a 'Love America' unit instead." At the third grade level two teachers said they saw no difference in effectiveness between the unit and the old program, while seven found it more effective. All nine said they would like to see Chelmsford field test the course.

These reactions of teachers obviously do not constitute any kind of complete evaluation of the primary grade courses, any more than the group interview study does. However, teacher's reactions are important, since they give some indication of how well pupils like such courses. Most teachers will not react positively to courses if their children are uninterested. Moreover, the teachers' reactions give some indication of how easy it would prove in any school system to induce teachers to accept the new program.

Evaluation of the Middle Grade Courses

Although the staff's subjective evaluation as a result of teachers' comments and staff observations of teachers has been that the fourth, fifth, and sixth grade courses are effective, much more evaluation is needed. By and large, the response of teachers to the courses has been good.

The fourth grade course has been tried out now for two years by the original group of teachers who attended a summer workshop and one year by a group of teachers in the local in-service training program. All of the first group liked the course, although they offered many useful suggestions for changes in the original materials. All of the teachers in the in-service training program said they would like to teach the course again, although several hoped more pupil materials would be prepared and that one unit which had not been revised in time for them to use in anything but the original form would be revised before they taught the course again. (This unit has been revised now.) Most of the teachers commented on the fact that the course required a tremendous amount of work, and one early participant in the in-service training program dropped out on this account. Few elementary teachers have had background in economics, and apparently it is harder for them to build their background in this discipline than in some of the others used in the elementary program. However, teachers who said that the course required hard work also usually said that they found it stimulating and useful for the children.

Only one teacher in Chelmsford tried out a unit in the fourth grade course--the unit on economics in the local community. This first-year teacher said that she would want to use the course only as one part of a program at that level. She commented: "I believe that this program was beneficial for the children, especially in the development of general concepts and attitudes related to our economic world. . . . The children enjoyed the unit, and I believe they profited greatly. However, for my personal interests, I would want to integrate this unit with one with more "meat"--one with historical, social, and perhaps anthropology included in it." Since this course includes three other cultures in addition to the study of the local community, this teacher may not have understood the scope of the total course when she made her evaluation about whether or not she thought Chelmsford should try out the program.

The fifth grade course, too, seemed to win approval from most of the teachers, particularly in revised form the second year. All of the teachers involved in the local in-service training program said that they would like to teach the course a second year. Like most other teachers using the Center's courses, most thought they had learned much during the first year and would do a much better job the second year. However, one of the original teachers dropped out of the program during the first year of tryout before teachers' suggestions could be incorporated in the revised materials. The materials at this level have been revised considerably since that first year of experience with them.

This course may include too many units. The first group of teachers got the impression that the units were teaching units, not resource units. It was no wonder that they got bogged down and did not complete the course. In addition to selecting procedures from within single units in terms of their class, teachers are urged to select from among the case studies rather than trying to teach them all. More case studies are provided than can be taught, so that the course will be more useful to schools in different parts of the country. In the revision of this course, one of the major units has been shortened considerably. However, teachers the second year still had difficulty in trying to teach all of the units.

One reason why teachers find it difficult to complete the course is that it is part of a sequence of courses. In grades K-4 the children learn many geographic concepts and generalizations, develop many map and globe skills, and learn to read simple charts and graphs. If pupils have not had these experiences in earlier courses, the ideas and skills must be taught from scratch rather than just reviewed through application to new data. Consequently, it takes much longer to teach some of the units than it will after pupils have come through the earlier sequence. In several years, it should be possible to evaluate the effectiveness of the course with pupils who have had the earlier background. Such data should enable the staff to decide whether or not the course should be shortened.

The sixth grade course, too, has been found too long in initial tryout. Again, the problem may be that pupils have not had the earlier courses and so much time is spent in teaching certain concepts and skills. Teachers also admit that they and the children find the first unit so interesting that they have a hard time getting off that unit topic to the next one. Moreover, with some of the experimental curricula in new math and science in the schools, less time is allotted for social studies in some classes than the staff had expected. This course may have to be shortened in the future, but the staff wishes to find out first what happens after teachers have had more experience with it. Most teachers have moved faster through all of the courses after their initial year with the program and after they get used to a program which provides continuity and sequence in the development of concepts and generalizations rather than one which deals with an idea once in a course and then moves on to another. The staff also wishes to find out what happens after pupils have come through several of the earlier courses in the curriculum. If the course is shortened in the future, it should not be shortened merely by omitting the final units, since the next to the last unit is one of the most important in the entire course.

This sixth grade course has been popular with teachers. Out of the ten teachers using it in the local in-service training program, nine said that they would like to teach it again. Teachers were impressed by the interest expressed by pupils, by "the variety of skills presented," and by the way in which pupils became involved in research. One teacher wrote: "My students have developed the knack of depth research, which carries over to all other subjects. Great to hear so many 'whys' and equally stimulating to see them find their own answers." The reactions of these participants in the in-service training program were similar to those of the teachers who had field-tested the program the first year and who had provided suggestions for the revisions which were made.

The Eighth and Ninth Grade Courses

The eighth and ninth grade courses have not been evaluated using control groups as yet. Some tests and attitude scales were developed and administered to eighth grade pupils in the experimental courses. However, these test results have been used to improve the tests, not to evaluate the courses, since without control groups it was impossible to state whether or not maturation or the course effected changes. A doctoral study is planned for the coming year, using a revised form of the attitudes scale and one concept test, to evaluate the effectiveness of the eighth grade course in increasing interest in the social studies and political affairs and effecting changes in feelings of political efficacy and in attitudes toward political compromise, and political activity. The concepts test will be used to find out not just how well pupils learn concepts but to discover whether or not there is a relationship between attitudes and conceptual understanding.

The more informal kinds of evaluation data gathered through oral and written reports by teachers and through observations by one staff member during the first year indicated that the eighth grade course seemed to be effective in achieving its goals. Of the eight teachers in the local in-service education program, six said that they would like to teach the course again. One said that he would not because his school is dropping half a year of the social studies at his level. The other "no" response was not accompanied by any explanation. The other teachers seemed to find the course challenging to them and to the pupils. Some of the effects of using the course on teachers are described in a later section in this chapter.

The only evaluation of the ninth grade course to date has been on the basis of subjective reactions of teachers who have used the course. Many teachers have been enthusiastic about it, but this response has not been unanimous. Some have felt a real need for the development of more pupil materials rather than such a dependence upon varied materials. Some have found it hard the first time they teach the course to adjust to teaching through simulation, which is the basic teaching technique used in the second unit. Teachers who lacked much economics background to begin with, found using simulation early in the course more difficult than did the others. However, teachers have wanted to teach the course again, despite these reservations, although several would like to see some changes. Four of the six teachers using the course in the local in-service training program said they would like to teach it again. The other two said they would like to teach it with some modifications. It should be pointed out that these teachers were using the unrevised materials most of the year, and that the revisions are now complete. Most of the teachers who have taught the course a second year have found it much easier to teach. They have apparently agreed with the teacher who said of another course: "These units seem so much better the second time around even without revision."

The Senior High School Courses

The most difficult courses to teach in terms of the social science background required are the senior high school courses which draw heavily upon all or many of the social sciences. Nevertheless, the eleventh grade area studies course has proved one of the most popular among teachers using it, even though it probably requires more extensive preparation than any of the others. Whether this reaction is because teachers have become upset by the older world history course, whether it is because they feel that the course seems to have much relevance for pupils in the modern world, or whether the course materials are really superior to some of the others, it is hard to tell.

The twelfth grade course, which also draws upon all of the social sciences, has proved popular with some but not so popular or even unpopular with others. More of the teachers have complained about the amount of reading which they must do. More of them have objected to learning activities which require pupils to take greater responsibility in presenting material to the class instead of having teacher lectures. More of them have complained that they would like to teach other topics which they consider more relevant, even though these topics may be included in other places in the curriculum. On the other hand, some teachers have liked the course very well and thought it of great relevance and interest to pupils. The second year of tryout has received much more enthusiastic reception than the first. Indeed, although two teachers in the twelfth grade in-service training program dropped out after only a few sessions, all of the rest said that they would like to teach the course again,although one would like to modify it to include other topics and materials.

Several factors may be important in explaining these different reactions. First, the twelfth grade course in the past may already have had more relevance to pupils' lives and been more interesting to them than the history courses; therefore, teachers may have felt less dissatisfaction with the old course and been more convinced that what they were already doing was good. Second, since the twelfth grade course typically is the course in the traditional curriculum in which some of the behavioral sciences are taught, these courses have been overcrowded, and teachers have tended to be selective in what they taught. Since they could not teach everything, they would teach what they thought most important and interesting. If they did not like economics, they could neglect it and rationalize this neglect. Therefore, these teachers might be more likely than world history teachers to dislike a course or be bothered by it if it did not include their pet topics, or it if included units in social science areas in which they were weak or less interested. Third, the personality factor and previous training of teachers may have been important in explaining different reactions to the course. This personality factor is analyzed further below. Fourth, in one sense this is the hardest course to teach until pupils have come through the earlier courses in the curriculum, since it is problem centered and builds on so many concepts and generalizations developed in previous years. The staff made suggestions for modifying the course during the early years of its use, but it will be hard to evaluate this course more carefully until pupils have studied the earlier courses. Fifth, an obvious reason for difficulty with the first group of teachers was that in all but one case, the schools were very slow about ordering materials needed for the course. Teachers had to begin with only a handful of materials and really could not try the course out as suggested. Later in the year when they had received more of the books and pamphlets, they were much happier with the units they were teaching.

Sixth, there may have been a difference in teachers at the different grade levels in terms of the teaching strategies and techniques which they were using before they began teaching the new courses. Those less used to some of the newer approaches or even most successful with some of the older ones might have had more difficulties in making a shift and been less likely to do so or to do so with any great rapidity. Like teachers at other levels, many of the teachers found that the twelfth grade course was easier to teach later in the year and even more so the second year. One teacher who had been so critical of one unit that he was unwilling to even try teaching it the first year, used it the second year and liked it very much. This was even before he received the revised form of the unit. In other words, the combination of a year of teaching the new materials plus access to more books which his school finally purchased gave him a very different reaction to the course materials.

Finally, the course may need more revisions. Perhaps some of the topics should be omitted or shifted, although it is of interest that different teachers have reacted both enthusiastically and negatively toward the same units, and the same teachers at times reacted negatively the first year and positively the second to the same unit. Perhaps more materials should be prepared for teachers in the form of collected readings to make their task easier. In the light of the early tryout, more materials are being prepared and the units have been revised.

The staff does not believe that it has the answer to why the twelfth grade course was somewhat less popular than the eleventh grade course among teachers or why some teachers are enthusiastic about the course while others are not. Different teacher reactions to the same course are to be expected with any new program, but why do some courses seem more readily acceptable to more teachers than the others? Moreover, why is there a difference between reactions to the same course by teachers in an in-service training program and those in the earlier summer workshop? The difference could result from a revision of materials. However, only a few of the materials in the twelfth grade course were revised early enough to be used by the second group of teachers. Obviously, a number of factors other than the course materials themselves need studying by those interested in evaluating new curricula.

The course which seemed least popular with teachers in the in-service training program was the tenth grade American history course. Only three out of the nine teachers said they would like to teach the course again. Another said he liked many things about it and would use many of the ideas but wished to modify the course. The reaction among the earlier group of teachers using the materials was also less favorable than that found for some of the courses, but much more favorable than among the second group except for the one teacher who was an ex-administrator, believed in a course built upon lectures and one textbook, and whose eyesight began to fail him during the early part of the school year--a fatal handicap for a teacher using a course calling for a wide reading program.

A number of questions intrigued staff members about the reaction to this course, since they did not perceive great differences between it and the other senior high courses except for its historical focus. This focus might lead some pupils to find less relevancy in the course than in the others, but should not have affected the reactions of teachers in this fashion, since they had been teaching American history before.

First, is the course too difficult for pupils and less interesting than another kind of American history course would be? Some teachers believe it is, and others do not. Its greatest success seems to have been in classes representing extremes of ability, from the above average students of higher socio-economic students to students in an inner city school with its usual problems of motivation and reading. If research studies in the future should really find it of less interest, what factors might account for the difference? Are the learning activities less interesting? Are the materials used less interesting? Is it because some of the teachers have refused to really try to use some of the teaching procedures which staff members consider some of the more interesting activities because they require the use of discussion based upon a wide reading program? Is it the result of spending too much time on early units because teachers have not used the resource units as resource units but rather as teaching units or have insisted on including many topics they had taught before whether they were in the units or not? Each one of these questions may relate to a factor which has led some teachers to consider the course less useful than the one he was teaching earlier. Staff members have noted that teachers who have never used such a program before have had a hard time or been reluctant to use the kind of wide reading program suggested in units even though several staff members have found through their own teaching experience with these units that the procedures called for in these units have aroused a high level of interest. Moreover, a number of the teachers have indicated that they had pet topics which they thought must be included in different units even though the Center's historian and education specialist working on this course pointed out the irrelevancy of the topic or even inaccuracy of older interpretations of such data.

Consideration of the first question leads naturally to a second. Is it harder, as the staff hypothesized originally, to persuade teachers to accept new course organizations, current interpretations, and new teaching strategies if they are teaching courses closely related to subjects which they have taught earlier than when the subject area taught is different? By and large, staff members believe that the answer has been "yes" for those working with its new courses. A larger number of those who have not been teaching in the same subject area before have been much more willing to follow suggestions in course materials and even try new teaching techniques. The others tend to find it easier to slip back into using old procedures, teaching topics and lessons they taught before, and using old interpretations. Since the tenth grade United States history course was similar in general subject area to that taught by most Minnesota teachers at that grade level, this factor may have been important in teacher reactions.

Third, is the tenth grade course a particularly difficult one for most classroom teachers to handle? The sequence of courses in the junior high school was expected by some to prove more difficult for teachers because the course content was so completely different from what they had been teaching. However, the tenth grade American history course requires a knowledge of the new political science, anthropology, sociology, and considerable economics as well as a knowledge of recent developments within American history. In other words, the teacher probably needs to work considerably harder to build his background in the social science disciplines than do the junior high school teachers. Indeed, some of them have commented about the tremendous reading load which the course entails for the teacher. On the other hand, this course does not require as extensive knowledge in the social sciences outside of history as does the eleventh grade course which has proved much more popular. The tenth grade course perhaps is more dependent than some of the other courses upon a teacher who is a skilled discussion leader. However, the other senior high courses also require skill in handling discussions.

Other questions relate to the tightness of structure of the curriculum materials, including format of the units, the personality factors among teachers, and the relationship which may exist between teacher personality and reactions to curriculum materials. Do those who have become American history teachers tend, either because of their training in college or their earlier predilections, to be less concerned than those teaching world history or the twelfth grade course with the development of ideas rather than the memorization of discreet data? The subjective reactions of several staff members would be that this tends to be true of prospective student teachers and may well be true of those already in the field. If this were true, an American history course which is analytical and focuses upon concepts and generalizations would not prove too acceptable to the teachers. Such teachers might be less likely than others to follow suggested teaching procedures or really modify the content of their courses and try to develop the stated objectives. One teacher in the in-service training program commented: "I believe so many things are missed or never reached that should be. Probably I have spent too much time on certain areas but this course seems to call for much time on subject matter." The teacher who is concerned about not missing certain topics may be unwilling to use the post-hole organization called for in this course and may try to spend much time filling in gaps. Several teachers who have

4

had very traditional types of history training have found the course difficult to begin with but very challenging as they continued to work with it. These teachers, however, were also interested in the behavioral sciences. Those without such interest may not react favorably to such a course.

Differences in teachers' personality structures and the degree of rigidity or openness they have toward accepting new content and different teaching strategies may call for different types of curriculum materials. More tightly structured materials which do not provide so much leaway as do the Minnesota curriculum materials, might be more likely to effect change in teaching behaviors, although it is also possible that they would be rejected as or more quickly. Staff members found it interesting that teachers in the in-service training program reacted so differently to the curriculum materials at the tenth grade level. One teacher thought that the teaching procedures were not varied or creative enough. Another wrote: "I thought, before having any experience with the materials that everything would be more complete, more settled as to evaluation materials, and especially method." This teacher apparently did not like options from which to choose. Still another teacher commented orally that he felt the program suggested too many different materials, that the reading materials should be structured more tightly. In the light of the reactions of the teachers in the in-service training program to the course as a whole and in the light of such comments, it is interesting to note that 67 per cent of the teachers said that if they were to return to the course they had taught before, they would teach it differently.

A related question focuses upon the format of the resource units provided teachers at the tenth grade level. How much effect did the format and the failure to revise units rapidly because of illness of one of the staff members have upon teachers' reactions? The original drafts of materials were not prepared in the format used in most of the units but rather in a more traditional form. The staff writer expected teachers to get acquainted with the reading materials and assume partial responsibility for identifying which chapters within books might be useful on certain topics. Moreover, this format did not give the teacher as much guidance in relating objectives to specific teaching procedures, since the objectives were stated only at the beginning of the unit. In other words, the format required more of the teacher than did the unit format used for the other courses. The teacher working with the first group of teachers noted that when they received the last unit, which was in the format used in other courses, the teachers thought it much improved before they really had a chance to examine it. The units in the tenth grade course have been revised in the new format and teachers are now given more help in identifying specific sources than in the original materials. However, the revisions were not ready for those in the in-service training program. Their reactions, therefore, are to the old units in the old format--units which also did not incorporate the suggestions which had been made for revising the units and reading materials.

Another question relates to the existing level of dissatisfaction with courses taught earlier. World history teachers may have faced such an overwhelming task in teaching world history, both because of the geographical and the time span, that many may be discontented with the old course and willing to look favorably upon a new and different approach. American history teachers may not be so discontented with the course which they are teaching. Therefore, they might be less ready to change either the content or their teaching strategies and so to accept a different program. Staff members believe that, just as in other aspects of culture change, the degree of discontent with present cultural traits (or the curriculum) is an important variable in the extent to which people are willing to accept change. Moreover, a teacher who is particularly interested in one topic within a course which he has taught before is unlikely to welcome a course which omits this topic. The extensive treatment of foreign affairs in both the eleventh and twelfth grades led staff members to omit this topic from the tenth grade course. However, one of the teachers in the in-service training program reacted negatively to the course because "it fails to include an area on foreign affairs." Other comments which he made orally, led the staff to believe that he would be far happier teaching the eleventh grade course which focuses heavily upon foreign affairs and foreign policy issues.

All of these questions deserve further study and several have significance reaching far beyond this one course. However, staff members have not waited for studies to try to find the answers to such questions. Rather, they have assumed that several may be important but that an effort should also be made to revise the curriculum materials themselves to try to provide greater guidance for teachers, to increase the variety of types of learning activities in order to provide greater choice in terms of pupil ability, to revise some of the reading materials used in exercises, and to provide additional reading materials at different levels of difficulty--to supplement those found easily in books. Several teachers who worked with these new materials before they became more generally available believe that the revised materials are easier and add interest to the course. Because of the illness of one staff member, however, the course materials were not revised as soon as in many courses and were used in unrevised form by the participants in the in-service training program.

The staff has not moved in the direction of greater tightness of structure even though some teachers may wish this, except insofar as it has modified the format of the units and made it easier for teachers to relate teaching procedures to objectives and media of instruction. However, the staff has brought together a slightly larger collection of mimeographed reading material to ease the task of the teacher and has revised the old ones to make them easier.

In the other senior high courses, too, the staff has attempted to ease the load on the teacher. This has been done not by providing a more rigid structuring of learning activities and reading materials, but by developing collections of selected readings which teachers could locate but only at the expense of considerable time and effort. Apparently these collections made the job of the teacher easier. However, since most of these collections consist either of copyrighted material which can be used only temporarily without being made available in a published collection of readings or were written or collected by staff members working on their own time without pay during summer months, some of them are not being placed in the public domain.

Staff members have had one other kind of check on the senior high materials and on the junior high materials. They were used by student teachers in the laboratory school at the University of Minnesota. Although the classes in this school represent an above-average ability group, comparable to student bodies found in some of the richer suburbs, the student body also represents a great range in ability. How successful would student teachers prove to be in using such resource units and materials with these pupils? Although the difficulty level of materials themselves could not be assessed in this situation, it was possible to assess the degree to which teachers, in their first experiences in a classroom, could use the resource units and could build their backgrounds for the units they were teaching. Some student teachers obviously did not do so well as others, but there was no sharp rise in drop-outs in student teaching, either through voluntary withdrawal or through staff decisions. A large proportion of the student teachers could not only use the materials but could and did use them effectively. The head of the social studies department for two years during this period felt that the materials made it easier to help student teachers develop teaching skills. This experience with student teachers suggests that the materials are not too difficult for teachers to use if they receive some kind of help and training and if they are willing to put forth real efforts in building their own background and trying out new teaching methods.

EVALUATION OF IMPLEMENTATION EFFORTS

Effects of the Curriculum Upon Teachers

One of the questions with which the staff was concerned was: How easy will teachers find it to use such flexible curriculum materials and courses dealing with new content and requiring an inquiry approach, given the amount of training provided by either the Center directly or through the in-service training program conducted by those who had taught the courses earlier? To date, our answers can only be subjective. Much more research is needed.

The questionnaire given participants in the in-service training program provided some subjective evaluation of this question. Although teachers were not asked the question directly, they were asked whether or not they would like to teach the course again and the reasons for their response. Many of the comments indicated, at a number of levels, that teachers wanted another chance to teach the course because they felt they had not done as well as they could the first year but had learned a great deal from the experience. Only at the second, eighth, and ninth grade levels did no such comments appear among the reasons presented. Staff members, moreover, had received similar comments from teachers working at the second, eighth and ninth grade levels. Moreover, instructors of the groups at these levels had noted such comments during group discussions.

Since the curriculum materials are not so tightly structured as are some curriculum materials, teachers are given more responsibility for making choices and probably find some difficulties in using the course the first year if content and the inquiry approach are very dissimilar to the course content and approach they were using earlier. However, comments by most teachers, some of which have been taped in group meetings, seem to indicate that it becomes much easier to work with the materials after teachers have taught the first several units and particularly during the second year.

One of the group sessions held with eighth grade teachers near the end of the second year in which teachers had used materials was taped. One of the questions asked was: "Has it been any easier to teach this course this year than last year?" All agreed that it had been much easier, partly because they now knew the materials and partly because some of the pupils had come through an earlier course in the curriculum. Several of their comments are illustrative:

> "My youngsters have come through the seventh grade program.... They have been accustomed to using these kinds of materials, the case studies, and so on, and I think this has had some effect. There isn't the shock of losing the cherished textbook.... And then another thing....there are some things you throw out that first year and other things that work quite well and there's a process of selection. We have an enormous variety of things in the resource units. In the process of selection--each year I should think would be better."

> "Well, I feel that it's very helpful in teaching and understanding the direction because you know what the end has in store for you. The first year you kind of plod through the materials, really not knowing what next week has in store for you. You may have read it but you couldn't conceptualize it and I think this year--well both years it was a great deal of fun, but I think it much easier the second, and I'm looking forward to the third year."

> "The second year around you get a much better feel for organization...I feel much more comfortable looking at one of these [units] and deciding what to do."

These eighth grade teachers were asked how easy it was for them to use the three forms of the case studies. Most agreed with the teacher who said:

> "It's really tough at first. You go through a shaky transition. I think you've got to be committed. I guess you aren't committed because of your own intuition but you have to be sold that this is the way to do it and then try it and then after a few attempts at this, then you start seeing that maybe we can teach a concept using three or four or five different things that all discuss the same contents. I was always concerned about how in the world you pull these readings together so you can dialogue, but by just trying it, the materials force one to do this.

The teachers were asked if their students were reading more than in past classes. One commented:

> "They're reading much more. I think magazine reading has gone up tremendously."

Another stated:

> "I think the newspapers and the periodicals--the kids are going to them not because we're singing their praises, but because all of a sudden these things are useful tools that they need. I used to try to beat them home to the kids--you know, with a current event once a week, and that never worked."

These same eighth grade teachers were asked: "How do you think this course has affected your teaching from the time you started this program? Or hasn't it?" Three teachers commented as follows:

> "I find myself asking, 'Why?' all of the time, and I ask the kids--I try to get it out of them rather than for me to tell them. And this has affected my other teaching, too."

> "I think that the way it has affected me the most is that it has encouraged me to be more inventive, and I suppose more creative....And then, also, I feel I understand my students a lot better because they express themselves a lot more, they're not afraid to express what they really think. . . ."

> "I think I did some of the kinds of things that this material does before I taught the project. However, I think that not always, but more often I've been able to achieve a kind of cohesion or kind of, you know, model that one talks about a lot. I'm able to relate goals to activities, really to teach with some more focusing direction."

Still another teacher said:

> "I think that one kind of looks at students, shall we say, in a different light. One is a little bit more open toward ideas even though those ideas may be a little wild. I don't know how to put it except that I think that one kind of respects students more after you work at this for awhile. You come in perhaps with fear--afraid how it's going to work and perhaps not everything works very well. But over a period of a year or two, you sort of lose that fear and you're willing to try almost anything and I suppose you become a little more experimental in the course, just speaking of that one point."

This same teacher commented later:

> "It helps a lot to have dissent in your class. ..The teacher can challenge the report of the group but that's not as effective as somebody in the audience saying 'Well, I'm not sure I agree with you.' That minority opinion is very important."

Another teacher, commenting on the effects of his experience with the course, stated:

> "I have two comments. One is, I think it's made me a much more flexible teacher. I used to be very authoritarian; kids must be at their desks. I didn't want them moving around because then they couldn't hear me when I was telling them. The second point is that I used to tell them everything I wanted them to know, or let the book tell them. Both of these things I used to value have disappeared and I think much more learning is taking place."

This same teacher said later on in the discussion that he now used much more group work and on some research topics let pupils work in pairs. He added:

> "The peer group pressure is really great. It isn't the teacher pressure any longer. It is 'Come on now, we've got to get something done--produce.' So they pressure one another and they criticize one another. ...And they're more willing to ask questions because if they're each sitting at their little desk working on an exercise, they're very unlikely to ask any questions. But if they are in a group they can--they're more willing to ask questions. I think they get more involved, too. ...They're squabbling over some interpretation...."

One teacher who had been reluctant to use group work at first reported that:

> "I was dumbfounded when they came back to the rest of the class and presented their findings and how well the rest of the class assimilated them. This really surprised me."

Several of the teachers who responded to the questionnaire on the in-service training program also commented upon the effects on them of teaching the course. One, for example, said of this same eighth grade course at the end of his first year in the in-service program:

> "It has been the finest experience in thirty years of teaching. It has been challenging, frustrating, frightening, soul shaking, and invigorating."

Probably most of the teachers found it frustrating and frightening at times, particularly during the first year. The Center finds it encouraging that the courses and the training programs seem to provide a professional experience which enables many of the teachers to learn much more about inquiry teaching strategies and to grow in flexibility of teaching methods. This is not to say, that more structured curriculum materials might not lead to greater initial growth or even greater long-term growth. Such a question needs further research along with research on the extent to which both types of programs achieve specific goals with different pupils. Nor should the comments quoted above be assumed to imply that all teachers who felt that they had become flexible were using inquiry strategies effectively. Classroom observations would indicate, as might be expected, that teachers use inquiry strategies with varying degrees of success. Nor should these comments be thought to imply that staff members feel that they were successful in using the courses to effect change in teaching approaches among all teachers. Rather, they know that they failed miserably with some of them, who were either unwilling to really try new approaches or gave up too easily because of problems to begin with or because of the amount of work involved. It is not easy to implement an inquiry curriculum with a teacher who says, as one of these teachers did, that he does not like to have pupils make any presentations to class because then he does not know what to expect. Nor is it easy to persuade teachers who have been used to lecturing to make the effort needed to change their approaches, if they hold the point of view, as expressed by one teacher, that pupils are either interested or not interested, and there is nothing you can do about it.

Based upon subjective evaluation, therefore, the staff members hypothesize that certain personality factors related to flexibility and openness on one hand or to rigidity and closed structures on the other, are perhaps the most crucial factor in determining the degree to which teachers will either: (a) try out new courses, or (b) really change their teaching behavior and follow a proposed new curriculum. Possible areas of research related to this personality factor and to the type of curriculum materials most useful in changing teaching behavior for these different types of teaching personalties are suggested in chapter five.

The Year-Long In-Service Training Program

Three questionnaires were used to evaluate the year-long in-service training program which was carried on mostly in small groups, using teachers who had taught the courses successfully for at least one year as the group instructors. Thirty principals who had one or more teachers in the in-service training program were asked how well satisfied they were with the program. Twenty-one said that they were very well satisfied, seven that they were satisfied, and one said that it was too early to know. One said that he was not satisfied.

Not all participating teachers returned their questionnaires. Since these were passed out in group meetings and participants were asked to return them later, the Center's staff has no way of knowing who did and did not reply. One might assume that those who replied were the most satisfied. However, questions were included to give the dissatisfied a chance to raise their objections, and some did.[2] Seventy-nine per cent of all of the teachers beginning the program returned their questionnaires. Several teachers began the program in the spring but dropped out either before the year began or early in the program and did not fill out questionnaires. These must be considered teachers who either did not like the courses or who, as some explained, found the program involved too much work and/or time.

Participants were asked to evaluate the total in-service training program. Fifty-five per cent found it very useful, another 32 per cent useful, for a total of 87 per cent. Only two per cent said that it had no value, and another 4 1/2 per cent said that it had little value. Unfortunately, another 3 per cent misinterpreted the question. Still another 3 per cent failed to answer it.

---

[2] Four returns too late to be counted were all highly favorable to the courses and the in-service program.

Participants were also asked to rate specific aspects of the program. The Center's staff expected and found that participants rated the large group sessions the first spring lower than the small group sessions, although 70 per cent found them useful or very useful. With such a sizeable group, these large group sessions had been conducted in the form of lectures by the director of the project. This finding would seem to indicate that small group sessions conducted by classroom teachers are more effective than lecture sessions in large groups, even though the teachers may not have such a complete picture of the entire project as the large group lecturer. Some of the instructors of the small group sessions believed the finding to result from the fact that the large group lectures had all been conducted during the spring and that participants could not remember them as well. The director of the project believes, however, that it is probable that large group lectures discussing the rationale of the program are unlikely to prove as helpful as a discussion of the rationale in terms of the specific course which participants are to teach.

Data on the other ratings are found in table two in Appendix 10.[3] The small group discussions were rated very useful or useful by over 87 per cent of the participants on each of the aspects of the program. It should be pointed out, however, that groups varied considerably on these questions. In four of the groups all of the ratings for the small group session were either very useful or useful on each aspect of the program. In one group four of the six aspects were rated very useful by 100 per cent of the group. On the other hand, in one group those replying very useful or useful dropped as low as 56 per cent on two aspects of the program and as low as 79 per cent on two more. In this group the small group sessions were rated lowest on helping teachers learn how to use specific teaching procedures and helping them to learn how to develop materials on their own. Whether or not the reactions of participants to the course materials (the tenth grade course) affected adversely their reactions to the value of the small groups, or whether the reactions to the small group sessions affected their reactions to the course is not clear. The leader of the group stated in his evaluation that "I think some are reluctant to change their teaching methods." Moreover, one participant in this group rated the total in-service training program only moderately useful and commented, "This is very much dependent on the group a teacher is a part of--especially the openness of the group. Our group was not very open." Another rated the total program "useless in some aspects because the group (with a few exceptions) has had very few original ideas. Many of them do not understand the rationale behind the project." The first comment came from a teacher who said he would not like to teach this course again but would like to teach other courses in the Center's curriculum. The second comment came from a teacher who said he wanted to teach the course again and liked it.

---

[3] Data on other aspects of evaluation are found in Appendix 10.

Staff members also wondered whether perhaps the length of each session in the in-service program might be shortened, since three hours seemed a long time. Moreover, they wondered if fewer sessions might prove about as useful. Participants' reactions were sought not so much to find out if a change would actually prove more effective but to find out whether or not the participants felt that the sessions had been too long or too many in terms of what had been done. Eighty per cent of the respondents said that the length of each session was satisfactory; seventeen per cent felt that they might be shortened somewhat. Ninety per cent felt that the number of sessions was satisfactory; the others felt that one or two fewer might have done as well. Several of the instructors for the groups felt that fewer sessions might have been used toward the end of the program.

Staff members were also interested in the reaction of the instructors of the small groups to this experience. Everyone said that the experience had been good and stimulating and had promoted his or her professional growth. A number said that they felt they had learned as much as the participants because of the work they had to do to prepare for the group. One noted that listening to what some of the teachers did made him more conscious of his own teaching and relating what he did to specific goals. Most of these group instructors wished to repeat the experience, although some said it took too much time given their other responsibilities or that they would repeat it only if it did not involve so much travel time from their own school district. Several also said, in writing or orally, that they wished they could have released time from their own teaching position to go out to visit the classrooms of participants in their groups. They felt that this kind of visitation had been one of the most effective parts of the Center's early efforts at implementation, and thus would like to see it included in the new program.

Two questions on the survey provided data on how easy teachers felt it would be to use the materials without help. One question asked: "Do you think you could have adequately taught the project units without the 1967 spring sessions?" Fifty-eight per cent said no. A much larger number, eighty per cent replied no to the question: "Do you think you could have adequately taught the project units without the extensive in-service training program carried on throughout the year?" One teacher who felt that he could have done so said that his recent college training had prepared him to do so. Some also replied that they could have taught the course but not nearly so well. Again, responses varied somewhat by course. All of the kindergarten teachers, for example, felt that they needed both the spring and year-long sessions. This data does not mean that the courses cannot be used without some kind of in-service training. However, it does imply that some such training would be very wise, whether carried on within the system or in a more extensive program such as the one used in this instance.

It is difficult to assess the comparative success of different groups or courses on the basis of this evaluation, even though the findings in total give the Center some confidence that the general approach to in-service training and implementing a new curriculum seems to offer enough potential to experiment with in slightly modified forms. A revised form of this program is being used for the year 1968-1969. Suggestions for further research related to such a program are found in chapter five.

Although a high percentage of the participants in the program had indicated that the program was useful or very useful in providing them with knowledge about the project's rationale, the staff was interested in finding out whether or not they understood the rationale, and whether they accepted it and would at least expect to apply the techniques used in it to any other course which they taught. The questionnaire included two questions on "Why do you believe that the Project Social Studies Curriculum was developed?" and "In what ways do you believe that the Project Social Studies Curriculum is different from your existing curriculum?" Most replies seemed to indicate that the participants had some understanding of the Center's goals.

Participants were also asked: "If you were to teach again the course which you taught before using the Project Social Studies course, do you think you would teach it any differently? If so, how?" Eighty-one per cent of all the participants replied that they would teach the old course differently. Only 7 per cent responded with a no. However, 10 per cent of the participants misunderstood the question or said that it did not apply because they were first-year teachers or teaching at a new level for the first time. Two per cent did not respond at all to the question. Those ways mentioned by at least ten per cent of the participants as ways they would change old courses can be grouped as follows. (It should be noted that these are the points salient enough to be mentioned in a free-response situation.) About one-third said that they would use more of an inquiry approach. Eleven per cent said they would use more student participation and try to involve pupils more in the work. Twenty-eight per cent said they would use more varied materials. Fifteen per cent said they would try to place more emphasis upon developing concepts and generalizations, and ten per cent said they would place more emphasis upon developing skills. Some of those replying said that they had already been using much the same approach as that used in the Center's curriculum materials and so would not change much.

These responses of participants, however, must not be accepted at face value. Most of the instructors of the small groups felt that some of the participants did not really understand the materials and approaches as well as they should and that some were probably not making very good use of them.

Participants were also asked: "Would you like to teach PSS courses next year? Why?" Responses for individual courses have been analyzed earlier in this chapter. Taken as a group, eighty-five per cent of all respondents replied "yes," and eight per cent "no." Four per cent said that they would with some modifications, while three per cent said they were not sure yet.

Curriculum Implementation at Chelmsford and Bellevue

The social studies consultant at Chelmsford asked the 34 primary grade teachers using single units from the Center's Curriculum during the second half of the year to answer a questionnaire. The results of this study are found in Appendix 4 on pp. 365-375. Grouping all of the teachers together hides much relevant data. For example, only one of the 34 teachers was teaching a unit from the fourth grade course which is the course which first gives major attention to economics. To group her responses with those of the other 33 teachers on how well the concepts from economics are taught obscures the effectiveness of the program as a whole or of the fourth grade course in particular. Moreover, an interesting analysis can result by looking at teachers' responses to the questions related to which groups of pupils the material was effective with by grade level.

Several points should be kept in mind in examining the data from this study. First, each of the courses from which single units were taken provide for the cumulative development of concepts from one unit to the next within the same course. Therefore, the total course should prove much more effective in teaching the concepts than any single unit. Moreover, teaching one of the last units in a course, as some of these teachers did, meant that they were working under handicaps in the sense that they had not laid the foundations for these units in earlier units.

Another difficulty in interpreting results arises from the wording of some of the questions. When the social studies consultant discussed the questionnaire results with the teachers, they felt that the responses to 2.12 and 2.13 were misleading.

They believed that the units had been more effective than previous courses with underachievers. However, when forced to make a choice of the one group with which the program had been least effective, a majority had indicated underachievers because they had learned less. Perhaps a questionnaire study of this kind might be revised to state questions in terms of the effectiveness of the program with each group of students as compared with the effectiveness of the program they were teaching earlier. For example, it might be more helpful to know how effective teachers feel a unit is with boys as compared to the previous program, how effective it is with girls as compared to the previous program, and how effective it is with each of the general ability levels as compared to the previous program. The teachers felt that the same kinds of reservations should be made in interpreting questions 2.14 and 2.15.

Some of the findings of this questionnaire study are interesting when compared to those of the study on the in-service training program in Minnesota. When teachers from grades K-4 are grouped together, fifteen per cent of the teachers in each of the programs felt that they could teach the course effectively on the basis of their own background and experiences. The percentage of all teachers (80 per cent) in Minnesota who felt that they could not have taught the course without in-service training was much larger than the per cent (24 per cent) of Chelmsford teachers who felt that an in-service training program would have enabled them to handle the single unit much more effectively. This difference may be due to the abilities of the teachers involved but more probably arises from one or more of three other factors. (1) The Chelmsford teachers were teaching only a single unit rather than an entire course which would be likely to prove harder to do. (2) The Chelmsford social studies consultant had prepared kits of materials for teachers to use with each unit, whereas the teachers in the Minnesota in-service program asked their schools to order materials but had to do much of the task of assembling materials themselves. (3) Teachers who had an in-service training program in which they worked on the entire course may have been more aware either of what they would not have understood without this help or of the kinds of benefits which might accrue from this interchange of ideas among themselves and with a teacher who had used the materials. The Center's staff believes that the second possibility is of great importance and that the third may also be important in explaining the difference. An analysis of individual replies, for example, suggests that some teachers did not really understand the rationale of the curriculum or the meaning of inquiry teaching. It is interesting to note, moreover, that 45 per cent of the teachers considered the program teacher-centered but that 93 per cent felt it fostered inquiry. The meaning of both terms may have been unclear to many teachers. The Center's staff also wonders whether those ranking teacher-to-student (lecture-demonstration) second high on the list would have done so if they had handled some of the activities in the way in which they were intended or had understood how reading or telling stories might be related to an overall inquiry process. Some of the inconsistency in reactions may have resulted from the wording of statements which may mean quite different things to different teachers. However, any failure of teachers to understand the meaning of inquiry teaching as the result of teaching one unit without an extensive in-service training program is not surprising, considering the reactions of teachers who had much longer in-service and summer programs and taught the materials for a much longer time. A number of these admitted later that it took them some time working with materials before the term "inquiry strategy" came to mean much to them.

It should be pointed out that in spite of the number of Chelmsford teachers who thought they did not need an in-service training program, seventy-eight per cent did say that they had to do much background reading to teach the units successfully. This would bear out the reactions of Minnesota teachers and would suggest that any new curriculum using multimedia and new course content will require considerable effort and a willingness to make such effort on the part of teachers.

The questionnaire data on overall judgments of the program are also of interest, both as they relate to the curricular materials and as they indicate the possibilities of using this kind of approach to introduce a new curriculum into a school system. About the same percentage of Chelmsford teachers (87 per cent) considered the unit they taught more effective than the previous course as said in the year-long in-service education program in Minnesota (85 per cent) that they would like to teach the Center's course again. An even larger per cent (97 per cent) of the Chelmsford teachers recommended that the school system adopt the program as a field-test program. This is about the same as the percentage of Minnesota teachers in grades one through three (93 per cent) who wished to teach the courses again. Minor differences in percentage mean little since both studies are based on small numbers. Actually, only two teachers in either place did not wish to use the program another year.

The social studies consultant at Chelmsford also taped interviews which he held with children who had studied each of the units. Pupils indicated more interest in studying peoples of other countries than in studying their own communities. They indicated that they liked using all of these different books and pictorial materials rather than one textbook.

The Bellevue public schools have not provided the Center with any evaluation material of this type. However, the social studies consultant has written that after some initial problems arising from attempting to start too many courses too soon with too many teachers, the schools have liked the program and wish to continue it. Moreover, they are developing a workshop to expand the program to the fourth and ninth grades for the coming year. Bellevue's evaluation of the program is not completed.

Obviously, this evaluation data is subjective, and other kinds of research are needed on curriculum implementation. Some areas of research are suggested in chapter five, which also includes the Center's suggestions for factors to consider in implementing its sources. Although the big task of disseminating information and implementing the curriculum lies ahead, the data gained from these earlier studies should prove helpful both in designing research studies and in developing more effective programs to induce curricular change.

Conclusions

Although chapter five analyzes the staff's conclusions in more detail and identifies a number of areas of needed research, it should be noted here that the Center's staff members are heartened by the early reactions to the curriculum materials and the early findings of evaluation studies. They believe that the materials can be improved in the light of further tryout, and they still wish to gather much data to test some of the hypotheses upon which they have operated in building this curricular design. Moreover, the staff believes that they have identified some factors which are important in curriculum implementation, at least of this curriculum, as well as research that is needed on implementation and the relationship between teacher personality structures and acceptance of different types of curriculum materials. Chapter five analyzes the staff's conclusions on these matters as it deals with the accomplishments and limitations of the Minnesota project and needed research.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

What Has Been Accomplished

The Minnesota Curriculum Development Project has accomplished a number of tasks during its slightly over five years of existence. First, the Center has developed a new K-12 curricular framework. This framework has been designed to provide for the sequential development of concepts, generalizations, skills, and attitudinal behaviors both within one course and throughout the entire K-12 program. The program draws upon all of the social sciences and weaves together both disciplinary and interdisciplinary courses in a curricular design to provide balance among the different fields and achieve goals which the staff identified as important for a program focused upon citizenship education. The curriculum provides for increased emphasis upon the behavioral sciences and the non-western world.

In the process of developing this curriculum, the staff examined the different social sciences to try to identify possible structures of knowledge in the different fields and points of convergence and divergence among them. It identified important concepts and generalizations in the different social sciences and used those which seemed most important for each field or which were important in a number of fields as threads in the curriculum. The anthropological concept of culture has been used as the basic concept which helps tie together all courses in the curriculum.

Second, as preparation for developing the curricular framework, the Center developed a series of background papers which have proved useful to those interested in understanding or using the curriculum. The set includes a paper on each of the social science disciplines, two papers which look at the social sciences as a whole, each from a different angle, one paper on "Concepts, Generalizations and Theories," one on "Learning Principles and Social Studies Curriculum Development," one on "The Role of Social Studies in Developing Values," and one on "Skills Objectives." The Center has also provided an analysis of its rationale for the curricular design in this final report. This analysis will be made available later as one of the Center's background papers on the project.

Third, the Center has developed extensive resource units and an overall teacher's guide for each course. The resource units provide extensive and varied teaching procedures so that teachers may adapt the units to different classes and to pupils of varied abilities and interests. Criteria to use in making such adaptations are suggested in the guides.

Fourth, the Center has developed sample pupil materials for some of the courses where other materials are not available.

Some of these materials have been appended to resource units and some have been assembled separately.

Fifth, the Center has tried out its curriculum materials in local schools, obtained written and oral feedback from teachers, and has incorporated their suggestions in revised editions of the materials.

Sixth, the Center has obtained the services of the Minnesota National Laboratory and a graduate student at the University of Minnesota to conduct two more elaborate evaluation studies of the seventh grade course and of the primary grade materials. Those making the studies developed evaluation devices and techniques to use with these specific courses.

Seventh, preliminary work has been done in developing evaluation instruments for the eighth grade course. Revisions are in progress and will be used next year by a graduate student in a controlled research study on that course.

Eighth, the Center has tried out different approaches for curriculum implementation. With the original teachers who tried out the materials, the Center used a summer workshop program supplemented by classroom visitations and periodic meetings during the following year. The Center developed a different format for other teachers in the local area to find out if teachers who had attended the summer workshops and taught the courses successfully for at least a year could be used to train other teachers in a year-long program when these new teachers first began to use the courses. A questionnaire study has been conducted to obtain reactions of the participants, their school principals, and the instructors of this in-service program at each grade level. This questionnaire has also been used to obtain additional teacher evaluation of the courses.

The Center has also worked with two different school systems in other parts of the country to obtain preliminary indications as to how well the curriculum can be implemented at some distance from the Center with little or almost no help from the Center's staff. These two school systems have used different approaches to working with teachers. Their experiences have provided staff members with some ideas about needed steps for further curriculum implementation in schools as well as about needed research on curriculum implementation.

Finally, the Center has provided in this report a description or case study of how a social studies curriculum center, using an interdisciplinary staff, has worked through the various tasks confronting curriculum developers. This description identifies the kinds of problems which staff members face if they decide to develop a curricular pattern which differs greatly from the old one and to implement such a curriculum in the public schools.

Limitations of the Project

The Center has been unable to accomplish all that it set out to do, and staff members recognize other limitations in the project. The Center was planned originally to develop a K-14 program. It was not to prepare resource units and guides for the junior college, but it was to make suggestions to social science departments at that level about the kinds of courses which might appropriately follow the K-12 sequence. This goal was set up at the time that the state of Minnesota was considering the establishment of a number of junior colleges. However, these have not been established as parts of existing community school systems, as were others in the state. Suggestions for junior college courses seem of little relevance unless large numbers of students have come through the new kind of program rather than a more traditional one. Therefore, given limitations upon staff time and money, the staff has not identified courses in grades 13-14, although several staff members have made some suggestions in their fields. After the program has been in operation longer, the Center may prepare a list of suggestions.

The staff was unable to find time to revise all of the materials before the second year of tryout in the public schools. This means that it does not yet have teacher feedback on all of the revised materials submitted to the Office of Education. Such teacher reactions will be obtained in the future.

Moreover, three of the units have not been taught at all in the public schools. The twelfth grade unit on race conflict was completed too late to be tried out, although teachers were briefed earlier on some of the main approaches to be used and tried out some of these approaches before the unit was written. Two other units, that on the Middle East at the junior high level and that on Completion of National Expansion at the sixth grade level come at the end of courses and have not been taught by the public school teachers. Since their courses were designed to build upon earlier courses, teachers found that they had to spend longer on the earlier units than will be needed once pupils have had the earlier training. The unit on national expansion has been taught by a staff writer at the seventh grade level rather than in the sixth grade where it is placed in this curriculum, and the materials have been adjusted for the lower grade level.

The Center was faced with such an overwhelming task in developing materials for teachers for grades K-12, that it has not prepared as many materials for pupils as it would like, given the very different curricular framework which it developed. Its original goal was to develop only a few sample materials. This it has accomplished. Indeed, it has developed rather extensive materials at some levels. However, many of these materials are in the form of adapted readings which cannot be placed in the public domain. Many others were either developed before the project began or have been developed by staff members working on their own time in the summer in order to provide additional materials for courses. Permission has been given the Center to use these materials for only a limited period of time.

Additional reading materials would make the task of the teacher easier at some levels, even though the courses can be taught successfully with those already available from other publishers or those developed specifically for this curriculum. At the eighth grade level, one of the staff members spent much of her own time developing reading materials at three different reading levels. It would be helpful to do this at other grade levels, also. Moreover, it would save time for teachers and be more effective if some of the pictures recommended for class study in the elementary school courses could be made into sets of slides by an audio-visual production company.

Some time might have been saved at the beginning of the project if the investigators had not decided to begin their analysis of the social sciences with a field in which much work had been done by others rather than with a field in which one of the staff members had given a great deal of previous thought. to the kinds of questions which staff members asked about the disciplines. A center should probably pay more attention to personnel strengths than to available materials in beginning the task of looking at the social science disciplines.

On the other hand, perhaps more time should have been spent by the social scientists in examining their fields. The background papers on the disciplines show differing degrees of careful thought and organization, and the conceptual frameworks vary in quality. However, given the task before it and the limitations of time and money, the staff did not believe that it could spend over a year in its preliminary stages of work. As curriculum materials are revised further, some of the limitations can be overcome; however, the original work was so basic to the later development of resource units that changes will entail considerable work. On the other hand, the staff's decision to produce a less tightly-structured set of curriculum materials than those suggested by many centers makes revisions easier. The staff has never thought of its list of concepts and generalizations as a final list; it has tried to make provision for change in materials. The Center was trying to develop a model to illustrate how continuity and sequence of concepts, generalizations, skills, and attitudes can be developed within a K-12 curriculum and the tasks which must be undertaken to do such a job.

Although the curriculum materials certainly illustrate this emphasis upon continuity and sequence, the sequence might have been developed even more consistently if only a few staff members had worked cooperatively on one course at a time, beginning with the kindergarten level and gradually progressing through the grades or if these few staff writers had prepared all of the materials themselves. However, such an approach would also have had limitations. The project was not funded for the length of time needed to handle curriculum development a year at a time. Different staff members were specialists at different levels and could use their talents to better effect at those levels. In addition, the Center felt that it would lose a number of advantages which would accrue by adding staff writers during the summer from among creative and successful classroom teachers. The director believes that the gains from such an approach have outweighed the disadvantages.

The disadvantages of the approach used have been offset in part by the fact that the director has made some final revisions on every unit in the curriculum to try to ensure greater continuity and sequence. The units still differ in quality, as would be expected in any curriculum project. With more time the director and some of the other original investigators could have made more revisions. This task, however, must be carried out in the future.

The Center lacked staff and money to do as much in-service work with teachers using its materials as was desirable. Staff members visited classes and held all-day sessions with teachers during the first year of implementation at each level. This experience led staff members to conclude that this kind of contact is extremely helpful in curriculum implementation and that more contacts of this kind should be provided. They could probably have made much greater impact upon teaching performance if they had been able to continue their classroom visits beyond the initial year at each grade level. Although they were able to hold some additional sessions with teachers at some grade levels, more should have been held.

The Center has been unable, given the time and money available, to develop the many instruments which were needed to evaluate all of the courses which it has developed. Nor has it had the money and staff to conduct its own controlled research projects either of the courses or of the degree to which teachers using the curriculum materials have actually modified their teaching strategies and techniques. However, the original proposal did not call for evaluation of materials other than subjective feedback from teachers except at several levels. Both the teachers' reactions and the more carefully designed evaluation of some courses by others have been reported in chapter four. The original investigators knew that the funds were too limited for full-scale evaluation and also considered the developmental period only an initial phase. Nevertheless, staff members wish that they had been able to conduct more studies such as those presented in the appendix in order to obtain additional feedback to help in the revision process.

One problem faced by this Center, and probably by most centers which operate over a period of time, arises from trends in the academic community at universities. It is hard to keep a curriculum team together in this day of staff shortages and competition for staff members and when research grants are more easily obtained than in the past. One of the original investigators spent one of the first four years abroad and then left to take a new position. Three other staff members have spent a year teaching or studying in other countries. Several of the staff writers have left to take other positions. Long-term projects are difficult to undertake under such conditions.

Many of the limitations seen by staff members can be traced very directly to two problems: lack of funds and lack of time for developing a program which became monumental once the staff decided to develop a drastically modified curricular framework. The first limitation has been the more important. The original investigators realized that the funds available, which were limited and not open to negotiation at the time it made its application, would not be enough to accomplish the task they set for themselves unless staff members contributed much of their own time. This many have done. Some have worked without pay but have been given an added research assistant. Some have worked without pay with no reduction in their University load. Some have been paid during the major part of the year but have worked without pay during some summer months. Graduate students have at times prepared materials without remuneration. When the Center's funds became too low during the last year of the project, the director paid several typists for a time and purchased many of the books needed to complete the program. The University of Minnesota, too, provided additional funds to keep the Center operating during the last year. The problem becomes obvious when one realizes that the Center's original grant from the Federal government was for $221,140. This amount was supplemented later by a special summer grant of $44,287 to bring staff members from small midwest colleges and universities to the campus to help prepare materials. This total grant of $265,427 had to be spread over the development of a new curricular framework and curriculum materials for thirteen grade levels.

The lack of funds has had a number of consequences. The Center has not had an administrative assistant to handle details. It has not had an evaluation expert or research specialist on the staff. It has not been able to obtain help from as many consultants as would have been desirable. It could not provide sets of pupil materials to schools free of cost to them. It could not engage in all of the implementation and evaluation efforts which were desirable. Moreover, it could do little about the task of disseminating information about the curriculum. True, implementation and dissemination were not an important part of the curriculum development phase, and some things have been accomplished. However, in-service training programs have had to be limited. Given the number of social studies teachers in the state of Minnesota, for example, only a small percentage have been reached. Many undoubtedly remain ignorant of the project despite sessions at meetings of professional organizations and articles in state professional journals. The Center could not even answer the thousands of letters which poured in. Money for stamps and office help was not enough to mail out form letters during the last years of the project, let alone answer special requests for information which needed individual replies or send out free materials to institutes or others requesting them. Staff members were so busy developing materials that they could not take the time to fill more than a few of the speaking engagements requested or talk to more than a few of the people who wished to visit the Center's headquarters to discuss its work. Given its task, the Center has operated on a shoestring. Staff members would never undertake such a task again with so few funds, even though they still believe that K-12 curriculum planning is important.

Next Steps and Needed Research

Obviously, two major tasks face the Curriculum Center at this time. First, there is a formidable task of disseminating information about the curriculum and helping those who wish to use it. Second, there is a need for much more evaluation of both the curriculum materials themselves and of ways of implementing new curricula in the schools.

Recommendations on Use of the Center's Materials

Although staff members believe that the Center's curriculum materials need much more evaluation, their tentative conclusions are that the materials are proving effective in achieving goals, even though they are uneven in quality and some need further modification. Staff members do not believe that this program offers the only possible curricular model to achieve these goals, but they do consider it promising enough to warrant further implementation in schools. Staff members also believe that even though more research is needed on approaches to implementation, they can make some recommendations on the basis of present findings.

First, considerable preparation is needed before teachers begin teaching the materials so that they will have needed pupil materials readily available. The Chelmsford pattern of providing kits for elementary teachers seems a wise one. At the secondary level, it is important that books be ordered far enough ahead of time so that they are in the schools when they are needed. Since the program uses many published materials, teachers need to check their own library facilities before orders are placed.

Second, some kind of introductory program should be conducted with teachers before they begin teaching the materials. This program may consist of only a few sessions, but in this case some follow-up work is needed. The Center believes that visits by a staff consultant or periodic grade level meetings or a combination of both the two are very useful in providing teachers with specific help, giving them an understanding of the rationale of the program and inquiry teaching, and building morale in a situation which is bound to present teachers with certain difficulties at first.

Third, if the Center's staff had to choose between a five-week summer session program with no follow-up work with teachers and an in-service training program with a few introductory sessions and then periodic meetings throughout the year, it would probably choose the second approach. The most useful pattern discerned so far combines a summer program, classroom visits, and periodic meetings of all of those teaching at one level. However, the summer program does not seem to be essential. Moreover, this kind of introductory program does not seem to have the same impact upon teachers as do sessions which are held while teachers are actually using the materials.

Fourth, in-service training sessions should not be based upon lectures. Rather, they should revolve around group discussions of materials. A few guest lecturers might be used at times, but teachers should have ample opportunity to discuss matters with them afterwards. Even the social science part of any summer workshop should be oriented toward discussion rather than lectures. One of the most productive types of session is that in which the consultant, field representative of the Center, or classroom teacher teaches a lesson to the teachers using the inquiry approach. Video tapes of classes using the materials should prove helpful when they become available in another year. The director of this Center will be on leave during the coming year to produce such tapes.

Fifth, consultants should not become discouraged if it takes time for teachers to grasp the rationale of the curriculum, to really understand an inquiry strategy, or to be able to use inquiry techniques effectively. The Center's findings indicate that teachers need to work with the materials for a period of time before they really understand these ideas. The impact upon teaching behavior may be slow at first but seems to accelerate with all but those who reject any effort at changing their approach to teaching. Consultants need to encourage teachers by pointing out that others have had similar difficulties at first but have found it much easier to teach the materials after some experience with them. They are usually much more enthusiastic the second year, when much of the hard spadework has been done in collecting materials and becoming thoroughly acquainted with them and with the resource units.

Sixth, the problem facing a school system is much different than that facing the Center which had the task of developing and trying out a new curriculum in a limited period of time. Therefore, it would be wise to introduce the materials into a school system a little at a time. Two approaches seem promising. In one, a system begins by introducing the materials into all classes in a school in the primary grades, the seventh grade, or both. This reduces the cost per teacher of any in-service training program since a number of teachers are involved at any one level. Moreover, it makes the job of the social studies consultant far easier. The second approach is to use volunteers to teach selected units or even complete courses at a number of grade levels. Once these teachers have taught the courses, they can be used to help other teachers use them. If these volunteers are leaders among staff members and can be given enough help from a consultant in the school system to enable them to have a successful and rewarding experience, their enthusiasm is likely to prove contagious and to encourage others to try the new courses. Unless the consultant has considerable time available or unless such volunteers are outstanding classroom teachers, it is probably wise to concentrate upon only a few courses at a time even with volunteers. This approach has the major advantage that no teacher is forced into a new program, at least at first. The more hesitant teachers can watch what happens with other teachers who are likely to be more enthusiastic because they are volunteers. Moreover, the school has an opportunity to assess the suitability of the program for their own system before investing the money needed for widespread adoption of new courses.

Needed Research

The Center's staff members perceive two broad areas of needed research related to the work done so far. First, there is a need to evaluate more carefully the curriculum materials. Second, there is a need to study different approaches to curriculum implementation and factors influencing the success of efforts to introduce a new curriculum into the schools.

Various kinds of research are needed on the curriculum materials themselves. There is a need for controlled research projects on the effectiveness of each course in achieving the stated goals as well as the effectiveness of these courses as compared to some of the other new courses designed to achieve similar goals. These studies should evaluate the curriculum materials in terms of their effects upon pupils' attitudes and upon skill development as well as upon cognitive learning.

Other research is needed to find out more about the kinds of sub-designs within courses which are most productive in achieving goals. For example, we need to find out much more about the effects of inquiry strategies upon learning with different groups of pupils and about useful sub-designs related to teaching processes within one course. At one point, before leaving to take a new position, one of the doctoral candidates working with the project planned a controlled research study using randomized classes to test the comparative effectiveness of three different degrees of emphasis upon inquiry within one course. One course would have used a basic expository strategy, another would have used an inquiry strategy most of the time, and the third would have used teaching strategies representing a compromise between the other two. All three courses would have been designed to teach the same concepts and generalizations, using the same topics for study.

It would also be useful to develop two or three different sub-designs for a course with similar goals and content, each representing a different combination of unit organizations. One could compare pupil interest, cognitive learning, and skill development in economics or sociology courses designed to achieve the same goals but using (a) units which are organized around a problems-approach, (b) units organized according to a logical approach, and (c) a combination of units of both types.

A number of other topics for research related to the materials have been suggested in earlier chapters. One of the most intriguing at the present time is that related to comparative approaches to affect attitudes toward minority group members and the self-image of minority group members. Research needs to be conducted both within one grade level, to compare historical and sociological approaches, and over time to find out whether or not a sequential program using a combination of different approaches has more of an impact upon attitudes than a sequential program using only one approach.

A number of other hypotheses mentioned in earlier chapters need testing. Does the inclusion of content related to pupils' immediate needs have any effect upon emotional adjustment? Does the opportunity to examine their own value judgments in discussions with other students have any effect upon attitudes and the consistency of value patterns? To what degree do materials designed to develop a scepticism of panaceas or of single-factor causation prove effective in developing these attitudes as measured by how pupils perceive new problems, perhaps personal problems or those faced by a school? Chapter one suggested some of the kinds of research needed on grade placement at the primary level and of materials on political affairs. Other questions also arise as one looks at this curriculum. For example, will some of these courses or the total program have more of an effect upon pupils' attitudes toward civil liberties than more traditional programs? How will pupils structure concepts in the social sciences after they have completed the program or any course within the program? To what extent, for example, will they relate concepts within the field of economics as economists might even if the course is organized in part around problem-centered units?

Finally, the Center needs to find out more eventually about the long-term, cumulative effects of a sequential program on the development of concepts, skills, and attitudes. To what extent does such a program encourage transfer of concepts and skills to new situations? To what extent are pupils able to apply the large number of concepts and generalizations taught in this program by the time they complete their high school careers? To what extent does a program which frequently attempts to have pupils relate content in new courses to what has been learned earlier promote retention of singular propositions about topics studied in previous courses, as well as retention of transferable concepts and generalizations? To what extent has the attempt to build in experiences which force pupils to limit or revise earlier generalization been effective in developing a scepticism of the finality of knowledge and an openness to new ideas? Does the repetition of skills, concepts, and generalizations through new content have a different effect upon interest in the social studies than a program which is designed to provide cyclical repetition of some of the same content areas? To what extent does a program which gives pupils many opportunities to use previously-learned concepts and skills in making sense out of new data affect their attitudes toward the usefulness of the social sciences or of the social studies courses which they have studied?

The second general area of needed research relates to the effects of the use of new curricular materials upon teacher competence, the comparative effectiveness of different approaches to curriculum implementation, and factors influencing acceptance of or resistance to curricular change in the public schools. Rather than depending, for example, upon teachers' own perceptions of how curriculum materials or in-service training programs have affected their teaching behavior, the Center would like to conduct research based upon either classroom observations or analysis of video tapes or tape recordings to find out how well teachers apply the recommended strategies suggested in the curriculum materials and the degree to which use of these materials brings about changes in the teachers' teaching strategies.

Further research is needed on the comparative effectiveness of different kinds of workshops or in-service training programs for both increasing teachers' ability to use new curriculum materials and their attitudes toward the new materials. The Center has tried out a new approach for in-service training using those who have taught the courses earlier to help other teachers use the materials. Research is needed to find out: (a) if all courses lend themselves equally well to this kind of in-service training program, and (b) the qualities which make for effective group instructors of such courses. It may well prove that some teachers who are highly successful in their own elementary or secondary classroom may not prove effective in this kind of teaching role. If so, what qualities are needed for such a role? It may also prove that the classroom teacher is more effective than the college instructor who is not actually teaching the course at the time. It may be found that some of the courses at the secondary level draw upon so many social sciences and represent such a break with traditional courses, that they can be implemented better using Center personnel than classroom teachers, while classroom teachers may be more or equally effective in helping introduce other courses. Certainly, much research is still needed in spite of the overall favorable reactions to this type of in-service training program.

Members of the Center's staff who have worked with teachers at different grade levels and have visited the classrooms of these teachers have been impressed by the fact that teachers at different levels were very unlike in their willingness to try new teaching strategies or teach new content. Such differences in openness to change would be expected among any group of teachers, but staff members were surprised to find so much difference between so many teachers of one grade level as compared to those at another. This difference may be due to differences in quality of the curriculum materials. Frequently, however, the same staff members were involved in developing materials at the different levels for which they noted such different teacher reactions to change. Some possible reasons for these differences have been explored in chapter four. It would be useful to conduct research studies using larger samples of teachers at different levels to check those hypotheses related to teacher personality factors or attitudes toward the previous courses which they were teaching. It would also be useful to hold course materials constant and study personality variables in relationship to teachers' reactions to a new course.

Finally, one kind of research study would prove useful both in curriculum development work and in curriculum implementation. It would be useful to design three different sets of curriculum materials for one course, one tightly structured for the teacher and pupils, one loosely structured as are those from this Center, and one representing a position somewhere between the other two. One could then study the comparative effectiveness of these different curriculum models with different types of students and with teachers of differing personality structures. For example, does the more loosely or more tightly constructed curriculum design gain greater acceptance among teachers with relatively rigid personalities? Among teachers who have flexible personalities and an openness to new ideas? What degree of tightness of structure is most likely to bring immediate and long range change in teaching strategies used by each type of teacher? Similar studies made of courses focused upon the different social sciences or upon an integration of the social sciences might find that some social sciences or interdisciplinary courses lend themselves better to more loosely structured curriculum materials than do others.

A curriculum center should not consider its task done once it has turned in a set of curriculum materials and a final report to the Office of Education. Nor should it focus entirely upon curriculum implementation and dissemination or upon research. Findings from further research studies should be used to make additional modifications in materials. Although this Center has developed a curricular framework to facilitate changes in the light of new developments in the world and in the social sciences and to make use of new materials which become available, the Center needs funds to revise materials from time to time to incorporate needed changes. A curriculum center, therefore, should continue operations after its initial task of development is completed. Although the University of Minnesota is providing limited funds for dissemination, any other work must be undertaken either by interested graduate students or staff members on their own time. To develop curriculum materials unless more can be done with them after the developmental stage has been completed, seems a waste of staff effort and funds.

APPENDIX # 1

AN EVALUATION OF MAN AND CULTURE, A BEHAVIORAL SCIENCE COURSE DEVELOPED

by the
Minnesota Project Social Studies Curriculum
Development Center

Project Director:	William E. Gardner
Research Consultants:	Douglas Anderson Paul Johnson
Research Associates:	Kent Layden Raymond Sandborgh

Technical Report No. 67-8

Minnesota National Laboratory
Minnesota State Department of
Education

August, 1967

SECTION I: INTRODUCTION

This study was conducted as a part of the evaluation of curriculum materials developed by the Project Social Studies Curriculum Development Center at the University of Minnesota. The Center, established in 1962 under a contract with the United States Office of Education, has on its staff specialists in social studies education and representatives from each of the social sciences. For the initial period of its work the staff examined the nature and structure of the various social sciences, the relationships of values to the social sciences and the social studies, the implications of learning principles for curriculum development, and the role of skills in a social studies program. After this basic theoretical work had been completed, the staff established a framework for a new social studies curriculum for grades K-12 and developed materials for each new course.

The curriculum materials which resulted from this effort have several distinctive characteristics: (1) they draw heavily from the behavioral sciences; (2) they place special emphasis upon the non-Western world; (3) important generalizations and key concepts from the social sciences are repeated several times at different grade levels through different topics, so that a spiral sequence is established; and (4) they place heavy emphasis upon learning through the inquiry method. The staff of the Center has prepared a number of materials, including resource units, teacher guides, and pupil materials for the various courses.

The materials developed have been subjected to continuous though limited evaluation. Experts in various fields of education and social sciences have read and reacted to the materials prepared. Teachers using the materials have kept a daily log of their activities, submitting weekly reports evaluating the effectiveness of the materials and teaching procedures. Teachers have been visited each week by members of the staff of the Center, and periodic grade level teacher workshops have been held. These types of feedback data are considered by the staff as a part of its program of formative evaluation and have proved to be immensely valuable in constructing and revising instructional materials.

The staff realized that this limited program of evaluation is insufficient to determine the effectiveness of the curriculum and that a more formal evaluation was definitely needed. The broad scope of the Minnesota project and the lack of funds for evaluation made it necessary to be highly selective and to choose only one course to examine more closely. The materials selected for a thorough evaluation were those developed for the seventh grade course, "Man and Culture." This course, which focuses upon the contemporary social system, represents a radical change from the typical junior high school social studies course. Although the course draws heavily upon sociology and contains some comparative material from anthropology, it also uses concepts from other social sciences. The cognitive objectives include the development of an understanding of such key concepts as culture, socialization, role, and social institution. Skills in locating, organizing and evaluating social science data and affective goals related to the social sciences are also major objectives of this course. Units studied during the year include an introduction to social science, the physical basis of behavior, the family, the behavior of groups and crowds, and problems of inter-group relations. A wide variety of reading materials and public opinion data are used throughout the course. The teaching procedures used are those which stress student-teacher interaction.

This study, an evaluation of the effectiveness of the course, "Man and Culture," had two primary objectives. First, an attempt was made to assess the extent to which the materials in the course were effective in achieving the stated aims. Second, an attempt was made to discern the meanings attached by students to concepts from sociology and anthropology. Little information is available on the question of how students attach meaning to such concepts and whether these meanings are at all compatible with social science concepts as social scientists understand them. That is, research has not indicated whether students can learn accurate concepts from the social sciences of whether their limited background makes concept acquisition and development extremely difficult.

The study was conducted under the auspices of the Minnesota National Laboratory, a research agency of the Minnesota Department of Education, and supported by the Upper Midwest Regional Educational Laboratory.

SECTION II: BACKGROUND FOR THE STUDY

In 1916, the Committee on the Social Studies made recommendations regarding social studies education which, in several respects, had a pronounced effect upon the development of the field. According to Edgar Bruce Wesley, the report

> "...gave currency and respectability to the phrase 'social studies.' It went far toward destroying the notion that school subjects must faithfully and fully reflect the scholarly bodies of materials from which they are to be drawn. It did much to popularize the needs of pupils and to emphasize the desireability of providing for pupil growth rather than of merely storing up information for the future.... And it had considerable effect in loosening the rigid control which the colleges exercised over the high schools...."[1]

A little appreciated aspect of the 1916 report was its attention to the "new" and emerging social sciences. The report discussed at length the need for a "sociological" use of history and created a new course, Problems of Democracy, which was to draw upon all the social sciences and enable a student to use the insights so gained to understand, appreciate, and perhaps even solve the crucial problems faced by American society. The committee also suggested strongly that programs must change as changes occur in society.[2]

Although the committee refused to align itself with a particular course pattern, it did suggest a possible mode of structuring the social studies program, which, moderate adjustment, was widely adopted. One unintentioned function of the committee report, then, was to fix upon social studies a pattern of courses which remains the basic framework of instruction today. Currently, this 1916 pattern has come under attack. Its critics claim that new social forces demand new approaches and different ways of organizing social studies courses and that much of social studies education is out-of-date and irrelevant to the modern world. In short, they are saying that the admonition of the 1916 group to "keep up with the times" has been ignored.

Among the more crucial and repeated criticisms is the statement that social studies programs are loaded in favor of history and geography with an admixture of descriptive political science thrown in. Where topics related to the behavioral sciences are included, the critics suggest, they are handled inappropriately, with insufficient emphasis, and quite inaccurately. The current pattern, it is claimed, ignores the dramatic recent developments in anthropology, sociology, and economics. The ultimate conclusion reached by such critics is that the present curriculum does not pay sufficient attention to the behavioral sciences, and consequently, cannot justifiably be called "social studies."

The commentary about and criticisms of the social studies curriculum have made an impact upon developments in this field. A concern for the teaching of behavioral science is definitely one of the most easily identified dimensions of the "new" social studies (or the revolution in social studies as recent developments are sometimes called). While generalizations about the future of behavioral science in schools must be made cautiously, the magnitude of the current activity suggests that these sciences of man will play a vital role as the substance of social studies classrooms.

The effects and implications of the thrust of the behavioral sciences need careful examination. It is apparent that curriculum developers who wish to include the behavioral sciences in the curriculum must answer two major questions, however tentatively, regarding the role of these sciences in social science education: (1) Should behavioral sciences be taught to elementary and secondary school students? (2) Can students in elementary and secondary schools learn data from the behavioral sciences? Or stated differently; At what ages do students begin to have the capacity to comprehend behavioral science concepts?

Both questions are obviously important. If sizable groups of people believe and argue that behavioral science should be taught, then the social studies curriculum will have to be reorganized to allow for the inclusion of these "new" data. If the arguments for teaching behavioral science are won by its advocates, it is incumbent upon them to indicate where such data could be included with optimum effectiveness or at least to indicate the ages and grade levels where it is not appropriate. This latter consideration takes on special meaning when one realizes that most topics from behavioral science are presently crowded in upon the upper end of secondary schools in grades 11 and 12. With all the topics and disciplines demanding "space" in the social studies curriculum (the non-West, increased amounts of geography, and so on) it is obvious that no lasting solution can be forged by "dumping" all behavioral science learning in the last two or three years of secondary school. Broad stages in the development of children during which they can grasp relatively difficult ideas must be identified. The second question, then, appears as a test of Bruner's often repeated suggestion that "...any subject can be taught effectively in some intellectually honest form to any child at any stage of development."[3]

The first question cannot be answered by typical research means but demands instead a philosophical answer dependent largely upon how one views the purpose of social studies education. Answers to this question will vary as to opinions of how valuable or important behavioral science is in general education. Despite the nonempirical nature of the question, it is often answered by teachers and administrators in terms of the second question. That is, the claim is sometimes made that children cannot learn behavioral science and hence, it should not be taught. Of course, if it is demonstrated empirically that children below college age are incapacitated by their limited experience and are, hence, unable to learn behavioral science content, the first question becomes totally irrelevant. In view of the challenging concepts about what the children are able to learn that run through education today, however, it seems totally unlikely that children and adolescents are quite that innocent. It is entirely possible that behavioral science should not be taught in elementary and secondary schools; indeed, there are several strong arguments to this effect, but these arguments could not and should not be related to an implied negative answer to the second question.

That question is empirical in nature. Although the data are difficult to collect and analyze, the question has great significance for the future course of the social studies. The present study has dealt fundamentally with this second question, and attempts to get at, in a beginning fashion, some aspects of the question, what are the effects of behavioral sciences content as taught in the course "Man and Culture?"

Course Evaluation

The "Man and Culture" course is one attempt to develop instructional materials designed to teach concepts from the behavioral sciences. The staff contends that each such attempt needs to be subjected to careful evaluation. The evaluation procedure developed for this course took into account the recent literature regarding both the accumulated knowledge about when children are able to learn difficult concepts from the social sciences.and the current statements about how a course evaluation should be conducted. Much recent research has been related to the development and teaching of concepts. The Harvard Cognition Studies by Bruner and his associates[4] throw considerable light upon the ways in which adults learn new concepts. The results of these studies have greatly influenced the new curriculum innovations in the social studies and has stimulated research concerning the ability of children to learn social science concepts. The studies of Beaubier[5], Cammarota[6], Spodek[7], and Kaltsounis[8] would seem to indicate that children from the kindergarten to the sixth grade can understand work with a great deal more social studies content than they are often expected to do.

However, not all of the studies reported suggest that the content of the elementary social studies curriculum should be up-graded. Darrin[9], studying how children learn economic concepts, concludes that effectiveness of teaching concepts varied directly with grade level. Mugge[10], who tested 180 second graders, reports that her overall findings indicate that many children are not ready for a comprehensive study of foreign places and people.

Most of the studies cited, though valuable, have limitations. Many of them represent a consideration of the status quo. That is, they indicate what concepts or level of generalization children have developed under present conditions and using existing materials. Spodek, and Darrin, whose studies involve the use of new materials, are extremely limited as to the sample of students and teachers and the period of time the materials were studied. In general, the research indicates that the broad question of whether young students can learn relatively sophisticated concepts from the social sciences is as yet open, although there is the strong possibility that teachers and curriculum developers have underestimated pupils' abilities.

Contemporary curriculum developments have also altered substantially the old perceptions of what "evaluation" is and how it should be conducted. Before the national, large-scale curriculum developments began, evaluation consisted of attempts to assess how well individual students had grasped the essential facts, ideas, and meanings contained in the instruction presented in a given class. Evaluation, then, was directed toward discovering what the students knew.

What this point of view ignored and what escaped the attention of most evaluators is that what was actually being tested was not the students' learning at all, but rather how well the students were able to give back the single answer which, according to the adult evaluators, they were supposed to have learned.[11]

Since the large scale curriculum projects dealt with new ideas of what should be taught and charted new courses for students, new questions about the nature of the courses became crucial. How successful are these new materials? How may they be improved? and What are the effects of these materials on students? The differences between former and present modes of evaluation may appear rather subtle, but actually the differences are quite profound. Formerly, evaluation seemed to focus almost exclusively upon assessing student performance; now the focus has shifted to include both material performance and the actual meanings attached by students to the verbal symbols used in the course.

Obviously, such a concept of evaluation demands more than the administration of pre and post tests and analysis of their results. The Project Social Studies staff used the contemporary research efforts and opinions regarding evaluation to develop what could be called an evaluation "system" with several significant features: (1) It centered on the evaluation of the curriculum materials rather than an evaluation of students' performance alone; (2) It used several subjective modes of collecting and analyzing data; and (3) it attempted to discern how students actually "view" the subject matter with a minimum of the type of constraint present in the typical multiple-choice test.

Essentially, the questions fell into two categories: How did the materials function with seventh graders; and What did students really learn about concepts in sociology? Such a focus for evaluation begs the question of how good the materials are compared with those in another course, but the staff feels that it provides a convenient early model for evaluating not only this course but other courses and would be useful to schools attempting to design and implement a new curriculum. As Scrivens has illustrated so well, a "summative" evaluation (a final assessment which should determine whether a certain course yields better pupil performance than another course) is an "inescapable obligation" of those engaged in curriculum development, but a "formative evaluation (an assessment designed to improve the course and to answer related questions) is, in the view of the Center's staff a necessary pre-condition.[12]

With these precepts in mind the curriculum developers tried to evaluate the seventh grade course. The system can be described as possessing four components, each of which was designed to supplement the others and to provide data pertinent to the objectives of the evaluation.

1. Classroom Observations. Since the curriculum materials had been constructed away from the "raw" climate of the public schools, some mechanism was needed to assess the general responses of classes. This was accomplished by assigning a staff member to observe each of the teachers on a regular, rotating basis throughout the year. This procedure allowed the observer to check the anticipated reactions of classes against the observed responses, to discuss individual problems with teachers, and to make suggestions about teaching techniques.

2. Feedback Forms. Teachers were asked to complete a standard form at the end of each week. The questions on the form were:

1. Briefly describe the content covered during the week. (You may list the activities from the unit which were covered.)
2. In your opinion which activities or procedures worked best?
3. Which activities or procedures worked least well?
4. Compared with what you would consider a typical or normal class reaction, how would you judge the reaction of your class to the materials covered this week?

   Enthusiastic_____ Average_____ Unenthusiastic_____
5. What specific suggestions do you have for changes in the activities, procedures, or reading materials you used during this week? (If you have constructed worksheets, exercises, or other supplementary materials, please attach a copy of each to this form.)
6. Use the space below to make any additional comments you feel are necessary.

This procedure acted as a reciprocal constraint upon the observations mentioned above. These forms were immensely valuable, also, for they provided a steady flow of teacher interpretation which was "fed back" into revision of materials.

3. Teacher Meetings. To obtain a third type of data about the materials, the Project staff brought the involved teachers together for five all-day sessions during the year. These meetings centered upon common problems in teaching the course, specific suggestions for additional materials or revision, and means of evaluating the effectiveness of learning. Besides supplementing the data collected through observations and feedback forms, these meetings proved to be a powerful device to support the sometimes flagging spirits of the teachers.

4. Tests. During the first two years of field testing, students were tested by teacher constructed instruments. Information from teachers concerning performance on these tests was taken into account in the revision of materials.

During the summer of 1966, the present study was designed as an attempt to assess the broad impact of the course on students. Three tests were constructed, each one concerned with several major aspects of the course. (A complete description of these instruments is given in Section III of this report, and copies of each test are included in Appendix A.) A controlled experiment was conducted in schools using the course. The staff views this experiment as the final activity in the formative evaluation of the course.

SECTION III: DESIGN OF THE STUDY

Description of the "Man and Culture" Course

The seventh grade course, "Man and Culture," produced by the Project Social Studies Curriculum Development Center at the University of Minnesota, focuses primarily upon the contemporary social system. Units studied in the course include:

1. Overview: Introduction to Human Behavior and Sociological Reasoning.
2. Biological Basis of Human Behavior
3. How We Become Human (socialization)
4. The Family as an Example of a Primary Group and Social Institution.
5. The School as an Example of Another Social Institution (Includes study of bureaucracy. Some attention paid to other institutions.)
6. Minority Group Problems

The course has several important characteristics which are not readily apparent from this brief course outline.

1. The "course" consists of resource units, now in their revision, books of readings, skills exercises, and additional aupplementary materials including public opinion data. No attempt was made to prepare "textbooks" for the course.

2. The course is "concept based." That is, the course seeks to make relevant to students a number of significant concepts from the social sciences, primarily from sociology, and to give students the ability to analyze social situations through the use of these concepts. The concepts stressed are those identified as part of the structure of sociology such as culture, socialization, role, and social institution.

3. Since neither text nor non-textual materials were available to teach sociology to seventh graders, the course developers made use of a wide variety of learning and teaching materials in constructing the curriculum materials used in the course. A particularly heavy stress was placed by the developers upon the use of appropriate adolescent literature. For example, Conrad Richter's novel Light in the Forest is used early in the course to show in part how human beings acquire a particular type of culture, and Esther Forbes' Johnny Tremaine is used later in the course to indicate some of the contrasts and similarities between the social structures of colonial times and the present day.

4. While not all of the teaching techniques could be described as "discovery," "induction," or "inquiry," the basic methodology used could be so classified. As often as seemed feasible, teachers were asked to lead their students to follow a procedure which involved analyzing specific illustrations of social phenomena, making a general statement or conclusion which is illustrated by the phenomena being analyzed, and then applying and testing the general statement in new situations.

Population

The subjects for the investigation were from five high schools in the Minneapolis and suburban area - one junior high school each in Bloomington and Richfield, two junior high schools in Robbinsdale, (Robbinsdale and Hosterman) and the seventh grade classes at University High School, the laboratory school of the University of Minnesota. There were a total of twenty-seven classes of seventh grade students involved in the investigation, eighteen experimental and nine control classes. Complete data were obtained for 699 students; 459 in experimental classes, and 240 in control classes.

In every school, the students were assigned to social studies classes through the regular scheduling procedures of that school.

Although school administrators were requested to assign students to classes by random selection, other scheduling considerations made such a procedure impossible.

Experimental teachers (those designated and trained by the Project staff to teach the "Man and Culture" course) were assigned to classes by the regular procedures used to assign teachers to sections in each school. Each teacher taught the experimental materials to all of his classes.

Control teachers and classes were chosen in the following manner: the principal of each school was asked to designate the seventh grade teachers who were in his estimation of equal skill and experience to the experimental teacher in his school; from his list control teachers were randomly selected and, from among the classes to which they had been assigned, one was randomly selected as a control class. Two control classes were drawn from the seventh grade classes at Bloomington and the two Robbinsdale schools. Because two experimental teachers were teaching "Man and Culture" at Richfield, three control groups were drawn from the seventh grade there.

Thus, experimental classes were those being taught the "Man and Culture" course by an experimental teacher during the school year 1966-1967. There were experimental classes in all five schools. Control classes were those chosen randomly from among the social studies sections of teachers deemed equal in ability and experience to the experimental teachers. There were control classes in all schools but University High School, where all seventh grade students used the experimental course.

In all cases, control teachers taught a course in United States history to their classes. Although there were variations in the course structure and the materials used, the courses taught to the various control groups were substantially the same.

Instruments

Appendix A contains copies of instructions and the tests given students for the Man and Culture Tests I and II, content and beliefs tests, respectively, plus the instructions and list of words for the Verbal Association Tests.

Content Test (I)

The Content Test was constructed by members of the Project staff to assess students' understanding of the major concepts and generalizations presented in the "Man and Culture" course. For each of the 58 questions, students selected from five choices the one answer they deemed correct or best. They responded on Digitek answer sheets so that the answer sheets could be easily scored by machine.

The test was divided into three sub-tests, each having items corresponding to particular emphases or units of study covered by the course. Twenty-nine items measured aspects of the socialization process and comprise the "socialization" subtest. Fourteen items deal with institutions and comprise the "institutions" subtest. Fifteen items test content covered in the unit on "Minority Group Problems" and comprise the "problems" subtest.

Values Test (II)

Since much of the content of "Man and Culture" is related to feelings, attitudes, and values, members of the research staff of this investigation constructed a Values Test designed to assess potential shifts in students' points of view during the time they were studying the course. The test consists of 63 statements; subjects responded by marking one of five spaces on a "Strongly Agree" to "Strongly Disagree" scale. Shifts in attitude by subjects could thus be determined by comparing pre and post test patterns.

While the "Man and Culture" course is not designed to teach attitudes toward specific social issues, aspects of the course are intended to encourage students to develop certain general "human" values and to adopt a "social science" posture toward data. Thus, students are not told what their attitudes toward minorities must be, for example, but they are encouraged to believe in concepts like "equality of opportunity" and to accept cautiously and critically the conclusions of social scientists regarding the causes of certain types of behavior by minority group members. The course, then, could be seen as encouraging certain types of general value positions.

Each of the items on the Values Test is intended to be a value statement which the course either encourages or discourages. For example, the course materials encourage agreement with Item 11 on the Values Test ("If a white man's skin turned black, he would soon learn to behave like a Negro") while it discourages agreement with Item 4 ("White people are naturally superior to people of other races"(. Thus, a "score" on the test could be obtained by assigning higher numerical values to positions which the course encourages than to positions which the course does not encourage. For each item, a determination was made as to whether a student who had internalized what "Man and Culture" encouraged him to believe would strongly agree or strongly disagree and that end of the continuum was assigned a value of five points. The next point on the continuum (either agree or disagree) was assigned a value of four points, and so on, until the farthest point on the continuum was reached and assigned a value of one.

After the test had been constructed, it was submitted to other members of the Project staff for examination and criticism. One criticism of the test from the staff was that certain items had a strong "content" orientation; that is, they seemed to be conclusions which could be derived from what was taught in the course rather than statements which would reveal more general value positions.

The criticism was well taken. The term "values" is usually defined as a basic commitment to broad principles. Most of the items in the "Values Test" do not measure belief in such principles, but are related instead to opinions about the behavior of people. To an extent, it could be argued that such opinions (or beliefs) as expressed by student responses on this test reveal basic value positions implicitly if not explicitly. Since pressures of time precluded an extensive debate of the various issues, the staff decided to proceed with the test as originally constructed, but, for analytical purposes, to divide the test items into two categories: items which were judged to be more related to general value orientation were placed in a "beliefs" subtest; items which were more related to the content of the course were placed in a "content" subtest.

Verbal Association Tests

Experimental and control subjects were given two verbal association tests, each containing the same twenty-four stimulus words, on pre and post occasions. These words were chosen as representative of the subject-matter model around which the Project Social Studies curriculum materials were constructed. Each of the twenty-four words was placed on an IBM card so that each student received a computer randomized group of words. On both tests, then, students received a packet of twenty-four IBM cards upon which they responded with a word or a number.

On the first test students responded by writing the first word that the printed stimulus word on the IBM card made them think of. On the second test students responded with a number between 1 and 7 according to how difficult they thought it would be for them to tell someone else the meaning of the stimulus words. The number 1 represented "extremely easy" and the number 7 represented "extremely difficult." Numbers between 1 and 7 represented ascending levels of difficulty.

The association tests used in this experiment represent an atypical assessment of course materials. The basic idea underlying the tests is that the free responses of students to stimulus words are indicative of the relationships they understand for each word and reveal in part the way in which they "structure" the subject matter in a course. From an analysis of such responses and by comparing them with the responses of teachers to the same words, assessments could be made of the ways in which the patterns of responses from the experimental groups resemble those from control groups and from teachers.

Method of Analysis

The purpose of the analysis was to describe the trends and differences in test results on the three measures used in the investigation so that a gross assessment of the effectiveness of the course materials could be obtained. Basically, comparisons were made between the experimental and control groups, between various subgroups of experimental and subgroups of control classes, and among classes within each group. By these comparisons, it was possible to discern the contribution of the course materials to the observed differences between and among groups and subgroups. The function of the control groups in the investigation was to provide a measure of the degree to which maturation and other factors external to the experiment contributed to the observed differences on test results.

Comparisons on the Content Test were made using analysis of variance. The null hypotheses being tested were that there were no significant differences between E and C groups in general and within pupil, sex, and ability level classifications, nor between classes of E and C teachers on the post administration of this test. For this analysis, it was assumed that there were no initial differences between the E and C groups as measured by the test. This assumption, however, was also examined.

On the Values Test the major concern was to determine whether there were any differences in the shifts that took place in the points of view of the pupils in E and C groups. This comparison concerning pre-post change was made for each item for E and C groups using chi-square to test the significance of the differences in response frequencies. Because the assumption of the χ^2 test demands that the groups be independent, a comparison could not be made between the responses of the total groups for each item. Rather, experimental and control groups were each divided randomly into two groups and one of each of these groups randomly selected to serve as a pre test control. To assure the complete reliability of the χ^2 tests, a cross validation was conducted (the groups were reversed and the same tests applied). The steps in this procedure were as follows:

1. E group and C group divided by random procedure into E_1, E_2, C_1, C_2 groups.

2. χ^2 test applied in the following manner:
   Pre E_1 v. Post E_2, and Pre C_1 v. Post C_2

3. Cross validation - χ^2 test applied as follows:
Pre E_2 v. Post E_1, and Pre C_2 v. Post C_1

Data obtained from the Values Test were also analyzed by means of analysis of variance. The null hypotheses tested were that no significant differences existed between groups and subgroups on the total scores obtained on the Values Test.

The major purpose of the analysis of the verbal association data was to assess the changes in verbal behavior of the students in E and C groups from pre to post testing. To obtain this assessment, the data were analyzed in several ways. The percent of responses given in common to each pair of stimulus words was computed; this procedure yields an Intersection Coefficient, which is an index of the associative similarity of each pair. IC's were obtained for relationships among E and C groups within pre and post tests and between pre and post test responses. In addition, response distributions (lists of responses to each of the stimulus words) were prepared for total E and C groups and for each class on pre and post tests. To analyze the difficulty of judgment data, the percentage of responses on the scale was computed for each word and for each group on the pre and post tests. This analysis permitted comparisons of the difficulty judgments between E and C groups and among the various words on the list.

The data collected from teachers regarding the structure of the stimulus words were analyzed by noting the degree to which teachers saw the same relationships between concept words and by obtaining a line count of these relationships. Intersection Coefficients were also computed for E teachers' responses.

Since ability was likely to be a significant factor contributing to the observed differences between and among groups, a control on intelligence was necessary. Scores on the Lorge-Thorndike test were obtained for all subjects, and the total subject group was then divided into three intelligence subgroups roughly equal in number. Standard procedures were followed in determining the IQ groupings. Thus, any major difference in ability between E and C groups could be discerned and the effects of the course materials on varying intelligence levels determined.

Limitations of the Study

This study had several limitations. (1) The population was chosen and pupils were assigned to classes on bases other than random selection. (2) Because of the pressures of time and the lack of adequate funds, the Content and Values Tests were not subjected to rigid analysis to determine validity and reliability. (3) Teachers of experimental classes undoubtedly employed a wide variety of techniques with their students. Thus, determining the relative effectiveness of the course materials was complicated by the fact that teaching techniques may have been associated with observed differences.

These limitations, of course, place severe restrictions upon the inferences which might otherwise be based upon the results and conclusions of the study. Yet it should be emphasized that the major purpose of the investigation was to gather information regarding the course and its impact on students who studied it. In the opinion of the investigators the limitations did not prevent the accomplishment of this purpose.

SECTION IV: ANALYSIS AND DISCUSSION

The analysis of the results obtained for each of the three tests will be presented and discussed in this section. Prior to this discussion, however, it is necessary to deal with the question of whether the two groups were homogeneous with respect to intelligence. If it became evident that substantial differences in ability existed between experimental and control groups, it would have been necessary to adjust for these differences through the use of different analytical tools than had been planned.

The Lorge-Thorndike Verbal Intelligence Test with its high possible relationship with achievement was used as a measure of ability. Results on this test were obtained from the various schools involved. Because the score usually designated as an IQ score is a derived or standard score, it was evident that the use of raw score data would provide a more sensitive measure of intelligence, and the raw score data were used to compare groups on this variable.

The means for the Lorge-Thorndike test for the various were as follows: Experimental boys, 51.82; experimental girls, 53.60; total experimental group, 52.70; control boys, 50.51; control girls, 51.85; total control group, 51.20. Table 1 presents the results of the analysis of variance used to test the hypotheses that no significant differences existed between treatment groups and between boys and girls and that there were no treatment by sex interactions. Although the means for the experimental group were higher than the control group means, the F-ratio obtained was not significant. Girls scored higher than boys in both groups, but these differences were not significant. Girls scored higher than boys in both groups, but these differences were not significant, nor was there interaction between treatment and sex. Thus, the inference was drawn from these results that the groups were homogeneous in intelligence.

TABLE 1

Summary of Analysis of Variance for Scores on the Lorge-Thorndike Test for E and C Groups

Source	DF	SS	MS	F
Treatment	1	393.0430	393.0430	2.6118
Sex	1	405.4588	405.4588	2.6943
Treatment by Sex	1	8.0053	8.0053	.0532
Error	747	112413.5695	1504.8670	

A. The Man and Culture (Content) Test

Descriptive data and results of the various tests of significance for the Content Test will be discussed in this section. The Content Test, a general assessment of the major goals of "Man and Culture," was subdivided for analytical purposes into three subtests (socialization, institution, and problems), each related to one of the primary emphases of the course.

Table 2 presents summary data from pre and post testing for the several groups. As this table shows, the means for the E group and subgroups were slightly higher on the pre test than those for comparable groups among the C classes on the total test and two of the three subtests. The post test results reveal decidedly higher means for the E group on the total test and all subtests, a result which was certainly anticipated. It is interesting to note that the C groups (boys, girls, and total group) made gains on all subtests and the total test from pre to post administration.

Analysis of variance was carried out on the pre test data to determine whether significant differences existed within E and C groups on sex, teacher, sex by teacher interactions, and intelligence. The results of the analyses (Table 3) revealed no differences for the E group on sex and sex by teacher interaction for the total test and the subtests; and no significant differences on any of the variables for the C group. Differences significant at the .01 level were obtained among teachers of E groups on all five measures. These results indicated that greater variability existed among E classes than C classes and suggest that similar differences might be expected on the post tests.

TABLE 2

Pre and Post Test Means on the Content Test and Subtests for E and C Groups.

Group	Means							
	Social Sub.		Instit. Sub.		Prob. Sub.		Content Test	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
E Boys	8.86	13.24	6.83	8.43	4.21	5.81	19.90	27.48
E Girls	9.33	14.65	7.32	9.02	4.61	6.14	21.26	29.81
Total E Group	9.09	13.95	7.07	8.73	4.40	5.98	20.57	28.65
C Boys	8.65	9.97	6.51	7.65	4.40	5.26	19.56	22.89
C Girls	9.18	11.03	7.00	7.86	4.66	5.27	20.84	24.17
Total C Group	8.92	10.51	6.76	7.76	4.54	5.27	20.22	23.53
Experimental Teachers								
#1								
Boys	11.1818	18.6667	9.0000	11.0000	5.0909	8.5833	25.2727	38.2500
Girls	9.8333	13.1667	7.5000	8.1667	4.1667	6.1667	21.5000	27.5000
Total Group	10.7058	16.8333	8.4705	10.6470	4.7647	7.7777	23.9411	34.6666
#2								
Boys	9.8571	14.2963	7.1429	9.0741	5.0000	6.4074	22.0000	29.7778
Girls	9.7667	15.5714	7.7667	9.3929	4.7333	6.6429	22.2667	31.6071
Total Group	9.8103	14.9454	7.2931	9.2363	4.1723	6.5272	22.1425	30.7090
#3								
Boys	9.3469	14.1333	7.7143	8.9778	4.7551	5.6667	21.8163	28.7778
Girls	10.2364	15.8846	7.7818	9.4039	5.0000	5.8654	23.0182	31.1539
Total Group	9.8173	15.0721	7.7499	9.2062	4.8846	5.7268	22.4519	30.0515
#4								
Boys	9.4193	12.5769	7.2903	9.4231	4.0000	5.5000	20.7097	27.5000
Girls	9.2000	13.7826	7.4400	9.2609	4.4000	6.1739	21.0400	29.2174
Total Group	9.3213	13.1428	7.3571	9.3469	4.1785	5.8163	20.8571	28.3061
#5								
Boys	7.5000	11.5882	5.6625	7.3235	3.4875	5.2206	16.6500	24.1324
Girls	7.8861	12.7391	6.4304	8.2319	3.9367	5.4058	18.2532	26.3768
Total Group	7.6918	12.6287	6.0440	7.7810	3.7106	5.3138	17.4465	25.2627
#6								
Boys	8.3889	14.2941	7.1111	8.4706	4.1111	7.4706	19.6111	30.2353
Girls	10.7273	17.2273	8.4091	10.3182	6.1364	8.5000	25.2727	36.0455
Total Group	9.6750	15.9487	7.8250	9.5128	5.2250	8.0512	22.7249	33.5128
#7								
Boys	9.5000	12.5588	6.7778	7.7353	4.4167	5.1471	20.6944	25.4419
Girls	10.0690	15.1333	7.4483	8.8333	4.6552	6.0667	22.1724	30.0333
Total Group	9.7538	13.7655	7.0769	8.2499	4.5231	5.5781	21.3538	27.5941

TABLE 2 Continued

Group	Social Sub.		Instit. Sub.		Prob. Sub.		Content Test	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Control Teachers								
#1								
Boys	8.8667	11.8667	6.5333	9.0667	3.9333	5.6667	19.3333	26.6000
Girls	9.6154	12.0833	7.8462	8.5000	5.3077	5.4167	22.7692	26.0000
Total Group	9.2143	11.9629	7.1428	8.8148	4.6428	5.5555	20.9285	26.3333
#2								
Boys	8.4615	10.0714	6.6154	7.6429	5.0000	4.6429	20.0769	22.3571
Girls	9.6154	14.9167	7.0714	9.0000	4.9286	6.1667	21.0714	30.0833
Total Group	9.0598	12.3076	6.8518	8.2692	4.9629	5.3461	20.5925	25.9230
#3								
Boys	8.5833	10.5455	6.5000	7.2727	4.4167	5.6364	19.5000	23.4546
Girls	9.1000	9.3500	7.1000	7.4500	4.3500	4.3000	20.5500	21.1000
Total Group	8.9062	9.7740	6.8750	7.3870	4.3750	4.7742	20.1562	21.9355
#4								
Boys	8.8462	11.0000	6.1539	7.8000	4.3846	5.1000	19.3846	23.9000
Girls	9.4167	11.1000	5.9167	7.4000	4.5833	4.0000	19.9167	22.5000
Total Group	9.1200	11.0500	6.0400	7.6000	4.4799	4.5500	19.6400	23.2000
#5								
Boys	9.1667	9.4615	6.4167	7.4615	5.1667	5.6923	20.7500	22.6154
Girls	9.2000	12.2000	7.4000	8.2000	4.6000	6.5000	21.2000	26.9000
Total Group	9.1818	10.6521	6.8636	7.7825	4.9091	6.0434	20.9545	24.4783
#6								
Boys	9.7500	10.6429	6.6875	7.6429	4.3750	4.7857	20.8125	23.0714
Girls	10.2857	11.1111	7.0714	8.1111	5.4286	5.5556	22.7857	26.3333
Total Group	9.9999	10.8261	6.8666	7.8261	4.8666	5.0869	21.7333	24.4782
#7								
Boys	8.0000	9.5455	6.8182	7.1818	3.8182	5.6364	18.6364	22.3636
Girls	10.6923	12.3333	8.0000	8.4167	4.8462	5.5833	23.5385	26.3333
Total Group	9.4583	10.1699	7.4583	7.8260	4.3750	5.6086	21.2917	24.4347
#8								
Boys	7.6875	8.3333	6.1875	7.4000	4.1250	5.4000	18.0000	21.3333
Girls	7.2222	9.8750	5.7778	7.1250	3.5000	5.5000	16.5000	22.5000
Total Group	7.4411	9.1290	5.9706	7.2580	3.7941	5.4516	17.2058	21.9354
#9								
Boys	8.3571	8.3333	6.7143	7.0833	4.5000	4.8333	19.5714	20.2500
Girls	8.8125	8.8125	7.1875	7.3125	4.8750	5.1250	20.8750	21.2500
Total Group	8.5999	8.6071	6.9666	7.2142	4.7000	4.9999	20.2666	20.8214

TABLE 3

Summary of Analysis of Variance for Pre Test Scores on the Content Test and Subtests for E and C Groups[a]

EXPERIMENTAL GROUP

Source of Variation	DF	SS	MS	F
A. Socialization Subtest				
Sex	1	10.18257	10.18257	.92252
Teacher	6	464.82703	77.47117	7.01873**
Sex by Teacher	6	63.45197	10.57532	.95810
Error	485	5353.32080	11.03777	
B. Institutions Subtest				
Sex	1	6.89486	6.89486	1.23762
Teacher	6	268.17010	44.69501	8.02270**
Sex by Teacher	6	31.91525	5.31920	.95479
Error	485	2701.96934	5.57107	
C. Problems Subtest				
Sex	1	7.50231	7.50231	1.84794
Teacher	6	136.42938	22.73823	5.60080**
Sex by Teacher	6	40.44243	6.74040	1.66027
Error	485	1969.01177	4.05981	
D. Total Content Test				
Sex	1	73.20266	73.20266	1.93512
Teacher	6	2355.28542	392.54757	10.37706**
Sex by Teacher	6	320.67594	53.44599	1.41285
Error	485	18346.77928	37.82841	
E. Intelligence				
Sex	1	4.22683	4.22683	.02859
Teacher	6	10614.36460	1769.06076	11.96702**
Sex by Teacher	6	735.67188	122.61198	.82942
Error	485	71696.59363	147.82802	

TABLE 3 (continued)

CONTROL GROUP

Source of Variation	DF	SS	MS	F
A. Socialization Subtest				
Sex	1	1.54821	1.54821	.14653
Teacher	8	119.18847	14.89855	1.41008
Sex by Teacher	8	37.83402	4.72925	.44760
Error	234	2472.38868	10.56576	
B. Institutions Subtest				
Sex	1	1.67202	1.67202	.27847
Teacher	8	49.79318	6.22414	1.03662
Sex by Teacher	8	19.23546	2.40443	.40045
Error	234	1405.00247	6.00428	
C. Problems Subtest				
Sex	1	1.05000	1.05000	.25913
Teacher	8	31.26783	3.90847	.96458
Sex by Teacher	8	28.82195	3.60274	.88913
Error	234	948.16530	4.05198	
D. Total Content Test				
Sex	1	12.68710	12.68710	.33242
Teacher	8	435.57679	54.44709	1.42648
Sex by Teacher	8	187.29536	23.41192	.61338
Error	234	8931.53570	38.16895	
E. Intelligence				
Sex	1	14.85952	14.85952	.12938
Teacher	8	1702.68735	212.83591	1.85316
Sex by Teacher	8	297.18872	37.14859	.32345
Error	234	26874.93687	114.85015	

[a] On all tables in this report, significant differences at the .01 level of probability are noted with a double asterisk (**); differences significant at the .05 level of probability are noted with a single asterisk (*).

An important consideration in the analysis of the pre test data was whether E and C groups differed significantly when their mean scores on the Content Test were compared. Table 4 presents the results of the analysis of variance comparing E and C groups on the test and subtests. As the table shows, no differences were found between the means of E and C groups, and there were no interaction (treatment by sex) effects. Significant sex differences at the .01 level were found, however, on the institution subtest and the total test, with the F-ratio for the problem subtest significant at the .05 level and that for the socialization subtest extremely close to the .05 level of significance. As the table of means for this test shows (Table 2), girls scored higher than boys on the Content pre test, and the analysis of variance results presents the strong possibility that the differences between sexes are to be attributed to greater achievement among girls than to chance factors.

TABLE 4

Summary of Analysis of Variance Comparison for Pre Test
Scores on the Content Test and Subtests
for E and C Groups

Source of Variation	DF	SS	MS	F
A. Socialization Subtest				
Treatment	1	5.7428	5.7428	.50212
Sex	1	41.9177	41.9177	3.66503
Treatment by Sex	1	.1393	.1393	.01218
Error	747	8543.5998	114.3721	
B. Institutions Subtest				
Treatment	1	17.2933	17.2933	2.8734
Sex	1	40.4112	40.4112	6.7145**
Treatment by Sex	1	.0000	.0000	.0000
Error	747	4495.8136	60.1849	
C. Problems Subtest				
Treatment	1	2.5727	2.5727	.6076
Sex	1	18.0054	18.0054	4.2524*
Treatment by Sex	1	.7762	.7762	.1835
Error	747	3163.0766	4.2343	
D. Total Content Test				
Treatment	1	24.5122	14.5122	.5959
Sex	1	291.5476	291.5476	7.0876**
Treatment by Sex	1	.2538	.2538	.0062
Error	747	30727.5853	41.1346	

To summarize the results of the analysis of the pre test scores on the Content Test, it is apparent that no significant differences existed between total E and C groups on the total test or subtests. If differences had existed between groups, modification would have been necessary in the plans for analyzing post test data. The significant differences were obtained among teachers of E classes and between sexes. These results indicated that more variability existed among E classes than C and that girls' achievement was higher than boys on this measure.

The post test results for this measure were analyzed in the same manner as were the pre test scores. An analysis of variance was carried out to determine whether significant differences existed within E and C groups on several variables (sex, teacher, sex by teacher interaction) and between E and C groups on treatment, sex, and treatment by sex.

Table 5 presents F-ratios for post test comparisons within E and C groups. Significant differences were found among E group teachers on all variables measured and for C group teachers on the socialization subtest. These results for the E group teachers could have been predicted from the pre test analysis which also indicated significant differences on all variables. The results for the C group teachers were not consistent with the pre test results and indicated that some extraneous variable operated in regard to the socialization subtest.

In addition, significant sex by teacher interaction effects were found in the E group on the institution subtest and total test, suggesting that a closer examination of the means for boys and girls by teacher was appropriate. Figure 1 is a diagram of this interaction and shows the means by sex for each teacher on the two measures. This diagram indicates that the interaction effect is undoubtedly due to the data from Teacher 1 where boys scored far higher than girls on both the total test and the subtest. For all other teachers, means for boys were lower than for girls. This effect may be due to the fact that boys with Teacher 1 were more intelligent than the girls in the same class, or by a number of other factors. It is interesting to note, however, that Teacher 1 was the only male teacher of E classes, a fact which could lead to speculation about the relationship of teacher-pupil sex identity to the achievement of boys and girls.

TABLE 5

Summary of Analysis of Variance for Post Test Scores
on the Content Test and Subtests
for E and C Groups

EXPERIMENTAL GROUP

Source of Variation	DF	SS	MS	F
A. Socialization Subtest				
Sex	1	45.2378	45.2378	2.2861
Teacher	6	813.6541	135.6090	6.8530**
Sex by Teacher	6	240.7191	40.1198	2.0275
Error	445	8805.7707	19.7882	
B. Institutions and Subtest				
Sex	1	4.0018	4.0018	.7048
Teacher	6	217.5001	36.2500	6.3846**
Sex by Teacher	6	78.1905	13.0317	2.2952*
Error	445	2526.6062	5.6777	

TABLE 5 (continued)

EXPERIMENTAL GROUP

Source of Variation	DF	SS	MS	F
C. Problems Subtest				
Sex	1	1.0612	1.0612	.2065
Teacher	6	276.5255	46.0875	8.9686**
Sex by Teacher	6	43.1082	7.1847	1.3981
Error	445	2286.7547	5.1387	
D. Total Content Test				
Sex	1	95.1890	95.1890	1.5983
Teacher	6	3084.6144	514.1024	8.6319**
Sex by Teacher	6	890.3691	148.3948	2.4916*
Error	445	26503.4294	59.5582	
CONTROL GROUP				
A. Socialization Subtest				
Sex	1	1.5744	1.5744	.1319
Teacher	8	222.4645	27.8080	2.3290*
Sex by Teacher	8	173.6917	27.7114	1.8184
Error	214	2555.1879	11.9401	
B. Institutions Subtest				
Sex	1	.3601	.3601	.0661
Teacher	8	47.5001	5.9375	1.0966
Sex by Teacher	8	23.6323	2.9540	.5415
Error	214	1167.4706	5.4554	
C. Problems Subtest				
Sex	1	.5833	.5833	.1199
Teacher	8	33.9367	4.2420	.8720
Sex by Teacher	8	41.4061	5.1757	1.0639
Error	214	1041.1038	4.8649	
D. Total Content Test				
Sex	1	6.8572	6.8572	.1628
Teacher	8	528.9284	66.1160	1.5699
Sex by Teacher	8	506.1745	63.2718	1.5024
Error	214	9012.3147	42.1136	

An extremely important segment of the analysis of the post Content Test data was a comparison between E and C groups. Table 6 gives the analysis of variance summary for the comparison considering treatment, sex, IQ, and treatment by sex, treatment by IQ, sex by IQ, and treatment by sex by IQ interactions for the total test and subtests. In every case the E groups had by far the highest means. Significant differences on sex were found for the socialization subtest and the total test. There were also differences among IQ groups on all tests. This result was completely anticipated and simply indicated that higher IQ groups scored better on the test than did the lower IQ groups.

The differences between treatment groups were expected, of course, since the variables were ones which measured what the E group had been taught. An interesting aspect of the results, however, are the exceptionally reliable F-ratios for the socialization subtest and the total test, which indicates that the content pertaining to socialization may have been taught more extensively and completely by the experimental teachers or that the content proved easier to learn than that for the institution and problems subtest (although the F-ratios for these tests were highly significant also). The sex differences were not completely anticipated. On the pre test analysis, differences favoring girls were found on the institution and problems subtest but these differences were not present in the post test analysis. Sex differences were observed for the socialization subtest on the post analysis and for the total Content Test on both pre and post. Because the means for these variables were obtained by combining E and C sex groups, these results are not of major significance to this investigation.

There were significant treatment by IQ interaction effects at the .01 level for the socialization subtests and the total test and significant sex by IQ effects at the .05 level for the institution subtest. Diagrams showing the relationship among the means for these groups are presented in Figure 2. In the treatment by IQ interactions E groups for each intelligence level were higher than for the comparable level in the C groups with the differences increasing in magnitude from low to high intelligence group. The question, however, is whether the main effect (treatment differences, favoring the E group) is due to the relatively high differences between middle and high IQ groupings of E classes and comparable groupings of C classes or to significant differences at all ability levels. To answer this question, an analysis was conducted contrasting the E-C means within IQ levels and using Scheffe's criterion for post hoc tests to determine the statistical significance of the obtained F-ratios. The summary of this analysis is given in Table 6a.

These results indicate that real differences favoring E classes exist between higher IQ levels on both variables and between lower IQ levels on the socialization subtest.

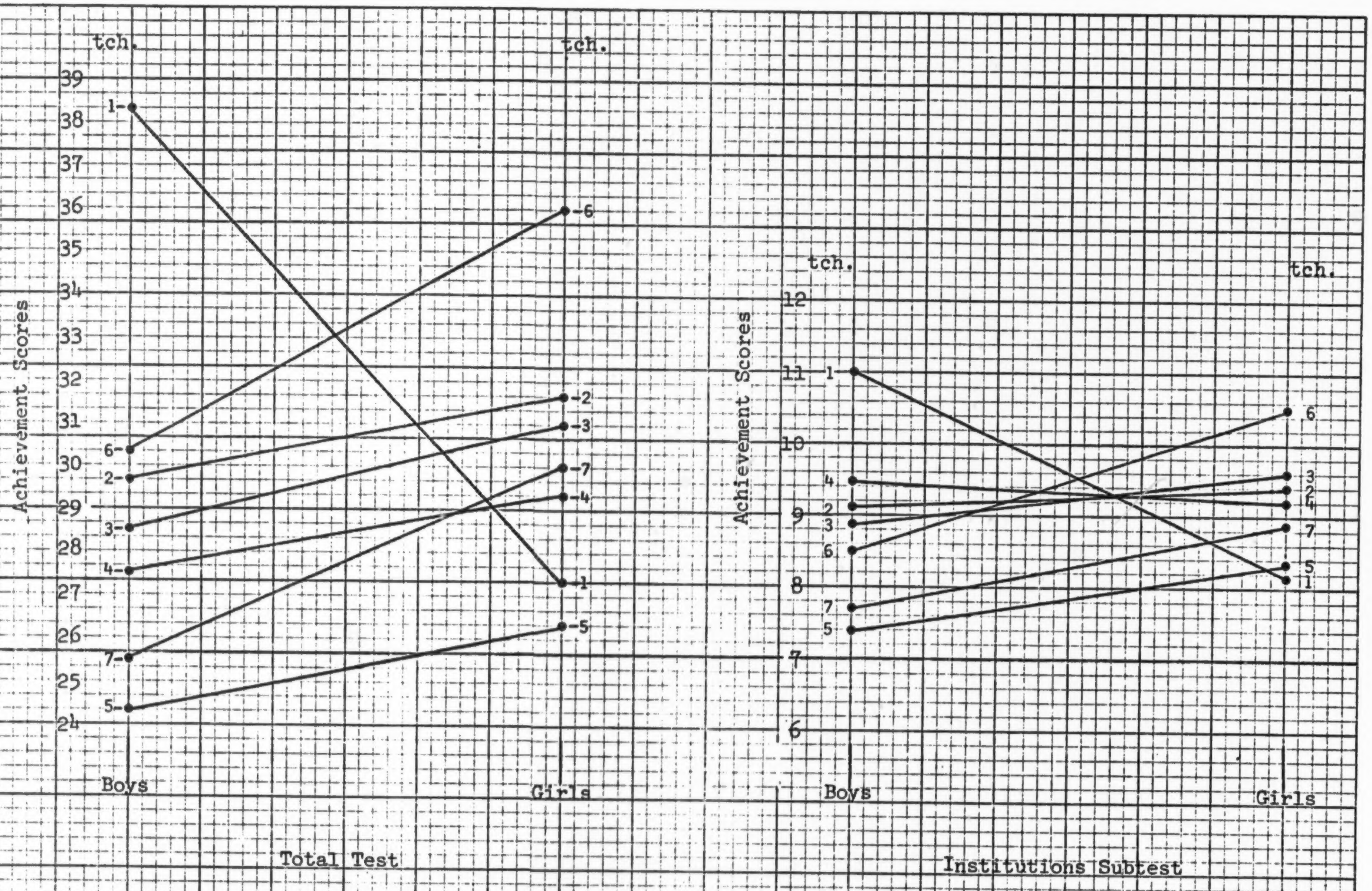


Figure 1

Diagram of Teacher by Sex Interactions for E Classes on the Content Test and the Institutions Subtest.

10 Squares to the Inch

TABLE 6

Summary of Analysis of Variance Comparing Post Test Scores on the Content Test and Subtests for E and C Groups.

Source of Variation	DF	SS	MS	F
A. Socialization Subtest				
Treatment	1	1515.5760	1515.5760	108.5791**
Sex	1	159.5029	159.5029	11.4271**
IQ	2	2266.7052	1133.3526	81.1958**
Treatment by Sex	1	2.0380	2.0380	.1460
Treatment by IQ	2	248.9579	124.4789	8.9179**
Sex by IQ	2	25.4220	12.7110	.9106
Treatment by Sex by IQ	2	15.5873	7.7936	.5584
Error	669	9338.0772	13.9582	
B. Institutions Subtest				
Treatment	1	121.5988	121.5988	27.3738**
Sex	1	11.6212	11.6212	2.6161
IQ	2	787.0830	393.5415	88.5925**
Treatment by Sex	1	2.3103	2.3103	.5201
Treatment by IQ	2	9.7097	4.8548	1.0929
Sex by IQ	2	34.4890	17.2445	3.8820*
Treatment by Sex by IQ	2	20.8338	10.4169	2.3450
Error	669	2971.8022	4.4421	
C. Problems Subtest				
Treatment	1	51.8015	51.8015	11.6140**
Sex	1	.7671	.7671	.1720
IQ	2	587.0631	293.5315	60.7663**
Treatment by Sex	1	2.0994	2.0994	.4707
Treatment by IQ	2	14.6970	7.3485	1.6476
Sex by IQ	2	16.3367	8.1683	1.2573
Treatment by Sex by IQ	2	821.3060	410.6530	1.8314
Error	669	2983.8922	4.4602	
D. Total Content Test				
Treatment	1	3266.6842	3266.6842	81.6558**
Sex	1	286.0933	286.0933	7.1513**
IQ	2	9756.3308	4878.1654	121.9372**
Treatment by Sex	1	19.3292	19.3292	.4832
Treatment by IQ	2	480.4726	240.2363	6.0051**
Sex by IQ	2	170.6613	85.3306	2.1330
Treatment by Sex by IQ	2	68.1290	34.0645	.8515
Error	669	26763.7100	40.0055	

TABLE 6a

Summary of Post Hoc Analysic Comparing Scores
of E and C Groups by Ability

	F-Ratios		
	Hi IQ	Mid IQ	Low IQ
Socialization Subtest	81.90**	29.05**	11.62*
Total Content Test	56.56**	24.30**	8.11

The sex by IQ interaction noted for the institution subtest indicates that the main intelligence effect (that higher intelligence groups scored higher on this measure than lower groups) needs to be qualified and explained. As Figure 2 illustrates, the differences between high and middle intelligence groups for boys is relatively small, but there is a larger difference between these two groups and the lower intelligence group. The reverse situation is true for girls, with the middle and low group means being fairly close and the upper IQ level substantially higher. Thus, this analysis revealed that the general IQ effects on the achievement test were different for boys than for girls.

Discussion of the Results of the Content Test Analysis. Several general statements can be made from the results of the analysis just described.

1. The differences between E and C groups on the post test for treatment effects were expected, but the magnitude of these differences is worthy of note. Significant differences for E groups were obtained for all subtests and the total test far above the .01 level. The results clearly indicate that the subject matter being taught to E groups was not a part of the common environment of E and C groups. Furthermore, the results justify the conclusion that 7th grade students can learn data, principles, and concepts from the behavioral sciences, at least as measured by the Content Test.

2. Generally speaking, the E classes performed at a higher level than C classes within all three ability categories. However, the general treatment difference must be attributed to the greater power of the course with higher intelligence groups. Simply stated, this indicates that the experimental materials did not seem to function as well with the lower intelligence level of the E classes. This conclusion, based upon the lack of significant differences between E and C classes in the lower intelligence range on the total test, may be qualified by the fact that the Scheffe criterion for post hoc tests is a very

conservative one; and, hence, the observed differences would have been significant had the tests been a part of the original analysis (i.e., not post hoc in nature). Nevertheless, the investigators prefer the more conservative criterion and conclude that the curriculum developers re-examine the course to insure the presence of readings, activities, and teaching techniques appropriate to lower IQ level students.

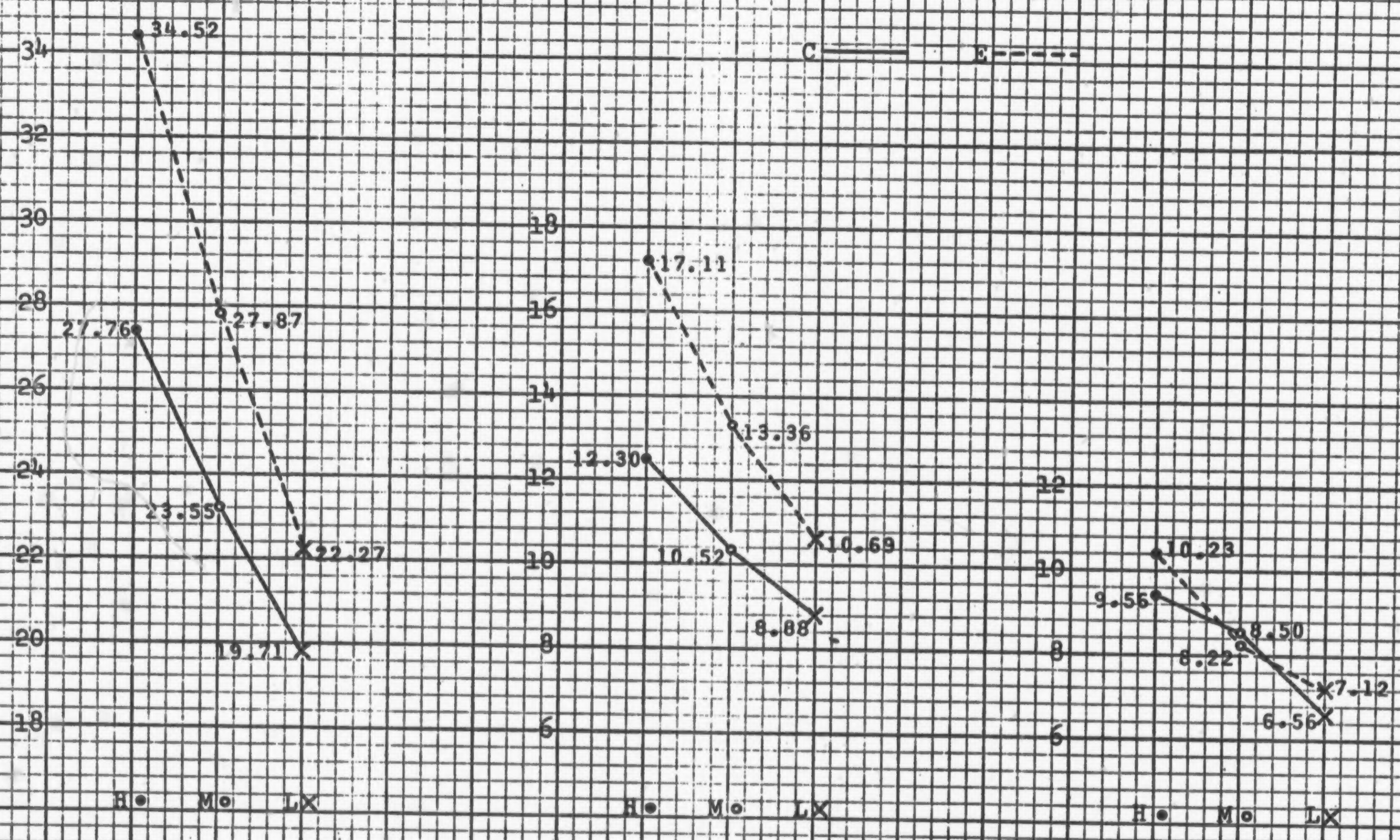
3. The F-ratios for differences between E and C groups were consistently higher for the socialization variable, and, in descending order, for the institution and problems subtest. Variance on the socialization subtest, thus, obviously contributed more to the differences observed on the total test than did the variance for either of the other subtests. These results may be attributed to one or more of several factors. The socialization subtest may have been a more sensitive measure than the other subtests, and, hence, possessed the capability of tapping more of the differences between and among groups. Or teachers may have stressed materials dealing with socialization to a greater extent than content dealing with institution and social problems. It may also be true that the content related to the socialization process was easier for students to learn than that dealing with problems or institution. Which of these alternatives constitutes the best explanation cannot be determined from the results of this study. The most viable tentative conclusion is to advise the curriculum center that materials for teaching socialization seem to function better than those for teaching institutions and problems (although significant treatment effects were found for both of the latter variables as well).

4. In general, the materials appeared to function equally well with both boys and girls. Scores for girls were in general higher than for boys, but not significantly so.

5. Gains by the C groups from pre to post tests cannot be explained completely. While these gains were not subjected to statistical analysis, a general pattern of improvement is clear. The gains may be due entirely to chance, but it may also be possible that some of the content tested by this measure was present in the social studies courses taken by control groups. Or the gains may have been due to a maturation factor, which says simply that something in the environment of 7th grade students is related to the Content Test.

B. The Values Test

Data from the Values Test were analyzed through the use of two statistical techniques. Chi-square values were obtained for all items on the test in the manner previously described. (See the Method of Analysis in Section III of this report.) This analysis determined whether students in E and C groups



A
Content Test
Treatment by IQ

B
Socialization Subtest
Treatment by IQ

C
Institution Subtest
Sex by IQ

Figure 2
Diagram of Treatment by IQ Interaction on the Content Test, Socialization Subtest, and Sex by IQ Interaction on the Institution Subtest.

respectively, responded in a significantly different fashion from pre to post tests. In addition the analysis of variance technique was used to assess differences in means between and among experimental and control groups.

Results from the Chi-square Analysis. Chi-square values obtained for each group on each item were considered significant only when the value exceeded the critical level for both initial analysis and the cross validation. The values for 29 of the 63 items on the test were found to be significant in both analyses; of this number 18 items were from the content subtest and 11 items from the beliefs subtest.

Table 7 presents a summary description of the significant χ^2 values. Twenty-five of the significant values were found between E groups only, five between both E groups and C groups, and one between C groups only. These results indicate far greater changes on these items for the E group than the C group.

TABLE 7

Summary of the Number of Items with Significant χ^2 Values on Both Initial Analysis and Cross Validation

	Signif. χ^2 for E Group only	Signif. χ^2 for C Group only	Signif. χ^2 for Both E and C Groups
Content Subtest	16	0	2
Belief Subtest	9	1	1
Total	25	1	3

Since the test responses were in five categories, the χ^2 test permitted no inference regarding the direction of the change; that is, the test for significant differences does not allow the investigators to say that the changes were due to a shift in a certain direction, only that change occurred. Direction of change, though, can be determined by examination of the frequency distribution of responses on pre and post administrations for each item. Complete data for initial analysis and the cross validation for all items are presented in Appendix B.

An examination of the distribution for those items on which significant χ^2 were obtained on both analyses reveals that the direction of the changes was toward the position supported by the course materials in 28 of the 29 cases. On item 60, for which the control group χ^2's were significant, the direction of the shift is not easily discernable although it seems to be toward the position supported in the course. Thus, the general shift in value positions noted were especially prominent within the E group and the direction of the changes were toward those positions supported by the course.

The major value of χ^2 analysis to this experiment was that it enabled curriculum developers and teachers using the course to examine the results of individual items and make adjustments in course materials and teaching procedures accordingly. Since space prohibits a complete analysis of all items for which significant results were obtained, six items with significant χ^2 values were selected for discussion in this report. Table 8 presents the frequency distributions and χ^2 values for each of these items.

TABLE 8

Response Distributions and χ^2 Values for 6
Selected Items on the Values Test

		Response Categories					
		1	2	3	4	5	χ^2Value
#1 Most people who end up in prison are just naturally bad people.							
IA	E1 Pre	9	45	30	102	23	26.8508**
	E2 Post	2	29	27	89	62	
CV	E2 Pre	12	49	28	102	22	22.3748**
	E1 Post	8	32	26	88	59	
IA	C1 Pre	3	34	19	31	12	10.4104**
	C2 Post	5	15	90	43	16	
CV	C2 Pre	4	23	18	57	13	3.8605
	C1 Post	2	16	17	59	21	
#2 Even if an Indian boy were brought up in the city he would probably be a better army scout than a white boy.							
IA	E1 Pre	9	41	65	72	22	30.1219**
	E2 Post	7	23	37	84	58	
CV	E2 Pre	10	41	70	78	14	27.1998**
	E1 Post	11	27	56	67	52	
IA	C1 Pre	2	18	27	39	13	1.5823
	C2 Post	1	17	29	34	18	
CV	C2 Pre	6	26	30	35	17	3.0753
	C1 Post	3	19	31	40	22	

TABLE 8 (continued)

		Response Categories					χ^2 Value
		1	2	3	4	5	
#4 White people are naturally superior to people of other races.							
IA	E1 Pre	5	18	35	44	107	10.9699*
	E2 Post	4	9	18	48	130	
CV	E2 Pre	7	14	53	47	92	18.5270**
	E1 Post	5	8	24	49	127	
IA	C1 Pre	0	18	15	32	34	10.4713*
	C2 Post	1	6	15	27	50	
CV	C2 Pre	4	7	26	30	48	5.2447
	C1 Post	1	11	18	37	58	
#5 I usually act much the same no matter what situation I'm in.							
IA	E1 Pre	4	28	35	109	33	28.9475**
	E2 Post	2	17	31	78	81	
CV	E2 Pre	7	44	28	98	36	28.6813**
	E1 Post	5	17	28	85	78	
IA	C1 Pre	2	15	17	50	15	7.0414
	C2 Post	2	6	21	45	25	
CV	C2 Pre	3	15	11	52	34	2.0263
	C1 Post	1	11	13	57	33	
#46 I can't help behaving as I do because my behavior was determined before I was born.							
IA	E1 Pre	8	15	53	70	63	28.2168**
	E2 Post	3	7	32	52	115	
CV	E2 Pre	3	16	48	83	63	34.6962**
	E1 Post	7	11	31	45	119	
IA	C1 Pre	2	8	25	36	28	1.2866
	C2 Post	4	9	28	31	27	
CV	C2 Pre	3	9	21	44	38	3.9754
	C1 Post	6	5	18	38	48	

TABLE 8 (continued)

		Response Categories					χ^2 Value
		1	2	3	4	5	
#60 A woman's place is in the home.							
IA	E1 Pre	28	56	47	58	20	9.1654
	E2 Post	17	39	56	67	30	
CV	E2 Pre	23	64	37	70	19	13.4053**
	E1 Post	24	48	39	54	44	
IA	C1 Pre	17	31	14	27	9	10.2879*
	C2 Post	23	28	11	15	22	
CV	C2 Pre	21	40	10	28	16	10.9866*
	C1 Post	20	20	18	33	24	

Items 1 and 4 were considered general value items in that they were not specifically taught in the course materials. In both cases, the course materials were judged to encourage a strongly disagree response; that is the course encouraged students to strongly disagree with each statement. On both items, the E group definitely moved toward the position supported by the course materials to a far greater extent than did the C group.

Items 2, 5, and 46 are definitely related to the Man and Culture course in the sense that all deal with some aspect of the social nature of man's behavior. On these items the course was also judged to encourage students to disagree with the statements. Chi-square values for the E group were strikingly large while no values were significant for C groups. These results definitely indicate that the experimental materials functioned to build an awareness of the social basis of man's behavior.

Item 60 was related to the course in the sense that after a study of the modern family and the emancipation of women, students might well feel that the statement is not a truism. Thus the investigators felt that the course content would lead students to disagree with the statement, although the significance of the topic to the course was slight. Apparently the course did not bring about the expected results since significant χ^2 values were obtained for only the course validation with the E group while C group values were significant at the .05 level on both analyses with the precise direction of shift being in doubt. The lack of clarity of results for this item makes interpretation difficult; the only conclusions possible are that the course materials did not seem to produce changes among the E groups and some extraneous factor served to change the responses of the C groups.

Another major use of the χ^2 analysis is to examine the items for which significant values were not obtained, a procedure which provides excellent feedback to course developers. Undoubtedly one of the reasons for lack of significant values might well be a vagueness and ambiguity in the items themselves. Despite this factor, several items present rather perplexing results. Items 11 and 24 (If a white man's skin turned black, he would soon learn to behave like a Negro, and People of different races naturally act very differently) may have been misinterpreted by students. The phrases "behave like a Negro" in 11 and the word "naturally" in 24 may be subject to several interpretations. Yet the course materials place great emphasis on the interaction between the physical and social environments, but suggest that if different groups of people behave differently, the reason is not physical (i.e. natural, through the genes) but due substantially to learning. Thus, while the items may be unclear, there is nothing in the course which would lead a student to adopt a strong position in opposition to the general orientation of the course. Despite this fact, E students did not reveal by their responses on the post test to items 11, 24, and several others that they shared the point of view of the course. In fact, on several of the items (especially item 11) they seemed to reject the position of the course by choosing a low proportion of positions encouraged by the course materials.

Another procedure for examining the data to obtain feedback is to obtain a measure of the types of items for which significant χ^2 values were not obtained. Such a categorization revealed that of the 34 nonsignificant items, 19 were directly or indirectly related to the topic of institutions and minority problems. This analysis provided only a gross measure, but it did suggest that insufficient time may have been spent on these aspects of the course or that the content related to these topics is more difficult to learn.

This relatively brief discussion by no means describes the complete and careful evaluation of results of the χ^2 analysis, but a full presentation of these results is impossible in the limited space available. The items and the analysis discussed here serve as illustrations of the way these data may be used by members of the curriculum development team.

Results of the Analysis of Variance. Scores from the Values Test were analyzed to test the hypotheses that no significant differences existed between E and C classes on the post test and subtests by treatment, sex, and treatment by sex interactions. The assumptions that homogeneity existed between and among E and C groups were also tested in this analysis.

Table 9 presents means on the Values Test for E and C groups and for various subgroups. This table shows that pre test means for E boys were higher than for C boys on both subtests and total tests while E girls were below C girls on two of the three categories. The post test results indicate that both E girls and boys made small raw score gains between administrations while the means for both C boys and girls declined.

Analysis of variance was used to test the hypotheses that there were no differences within E classes and within C classes for sex and teacher and that there was no sex by teacher interaction. Table 10 presents the results of these analyses. Within the E classes, significant differences were found among teachers on all three variables and the sex by teacher interaction effect was significant for the content subtest and total test. The former results indicated that real differences existed among classes of the seven E teachers. This main effect, however, must be qualified because of the interaction effect with the sex variable. Figure 3 presents a diagram of the E group means which contributed to the interaction effect. The diagram indicates that the teacher differences on both variables were not consistent; that is, there was wide variation on both content subtest and the total test between the means of boys and girls for the same teacher. Real differences, then, existed among E group teachers, but these differences were probably due to significantly better performance by boys in some instances and girls in others.

TABLE 9

Pre and Post Test Means on the Values Test and Subtests for E and C Groups

	Means					
Group	Beliefs Subtest		Content Subtest		Values Test	
	Pre	Post	Pre	Post	Pre	Post
E Boys	70.79	71.43	143.23	147.44	214.02	218.87
E Girls	71.89	72.80	144.43	146.94	216.31	219.74
Total E Group	71.33	72.10	143.83	147.19	215.16	219.30
C Boys	68.77	66.47	142.63	137.90	211.40	204.37
C Girls	72.78	69.40	143.93	140.39	216.71	209.72
Total C Group	70.88	67.97	143.32	139.16	214.19	207.13

TABLE 9 (continued)

EXPERIMENTAL TEACHERS

	Means					
Group	Beliefs Subtest Pre	Post	Content Subtest Pre	Post	Values Test Pre	Post
#1						
Boys	76.2143	75.4167	149.1429	152.5833	225.3571	228.0000
Girls	71.6667	71.5000	142.1667	151.2500	213.8333	222.7500
#2						
Boys	71.8000	73.9286	145.6333	153.4286	217.4333	227.3571
Girls	70.9310	73.3214	143.0000	150.9643	213.9310	224.2857
#3						
Boys	75.0213	75.0426	148.6383	153.3192	223.6596	228.3617
Girls	73.6491	77.3333	147.1930	151.2708	220.8421	228.6042
#4						
Boys	71.3333	72.7931	142.7667	148.3793	214.1000	221.1724
Girls	72.4800	73.8000	143.2000	148.4500	215.6800	222.2500
#5						
Boys	66.6203	67.1231	138.5949	140.4462	205.2152	207.5692
Girls	69.6310	68.4706	142.9286	141.5000	212.5595	209.9706
#6						
Boys	72.0000	74.5000	142.2222	148.7222	214.2222	223.2222
Girls	76.2000	78.5217	147.5200	149.6087	223.7200	228.1304
#7						
Boys	70.3947	68.5758	142.9474	144.2727	213.3421	212.8485
Girls	71.7241	70.2581	143.6207	144.4839	215.3448	214.7419
CONTROL TEACHERS						
#1						
Boys	71.0000	69.2000	145.4000	143.8000	216.4000	213.0000
Girls	74.7692	68.0769	145.1539	144.4615	219.9231	212.5385
#2						
Boys	68.8462	65.1539	142.0000	136.3077	210.8462	201.4615
Girls	73.4286	72.7273	145.2857	147.4546	218.7143	220.1818
#3						
Boys	69.5385	67.0909	143.0769	139.5455	212.6154	206.6364
Girls	70.0000	67.7895	138.9000	140.6316	208.9000	208.4211
#4						
Boys	66.4167	66.1539	138.9167	137.4615	205.3333	203.6154
Girls	67.2308	67.0000	139.9231	136.7500	207.1539	203.7500

TABLE 9 (continued)

	Means					
Group	Beliefs Subtest		Content Subtest		Values Test	
	Pre	Post	Pre	Post	Pre	Post
#5						
Boys	68.5333	66.8000	137.2667	141.9000	203.2000	208.7000
Girls	75.6667	74.4000	142.7500	144.4000	218.4167	218.8000
#6						
Boys	68.5333	64.8333	144.4000	137.5556	212.9333	202.3889
Girls	75.8125	66.9231	145.1875	137.7692	221.0000	204.6923
#7						
Boys	69.5455	67.0000	145.1818	141.0000	214.7273	208.0000
Girls	72.9231	72.7500	144.2308	143.5833	217.1539	216.3333
#8						
Boys	71.3125	67.8462	141.3750	139.2308	212.6875	207.0769
Girls	73.2778	70.9444	144.4444	140.5000	217.7222	211.4444
#9						
Boys	67.3571	64.5000	146.2857	124.0833	213.6429	188.5833
Girls	72.6842	66.3750	149.1579	131.3750	221.8421	197.7500

Among the C group, sex differences were found on the beliefs subtest. An examination of the means in Table 9 shows that the difference favored girls over boys. No other significant differences were found for the C group.

Analysis of variance was also used to compare E and C groups on pre test results of the two subtests and the total Values Test. Table 11 presents the F-ratios obtained from these analyses. No differences were found on any of the variables between the scores of E and C groups, with the F-ratio in each case being less than one. Significant differences were found between boys and girls on the beliefs subtest and the total test, and, as Table 9 shows, these differences favored the girls. However, there was a significant treatment by sex interaction effect on the beliefs subtest. Figure 4 is a diagram of the means involved in the interaction. Means for E group girls and boys were closer together than means by sex in the control group. Thus, the significant sex differences noted on the beliefs subtest was caused primarily by the differences between C girls and C boys.

TABLE 10

Summary of Analysis of Variance for Pre Test Scores on the Values Test and Subtests for E and C Groups.

EXPERIMENTAL GROUP

Source of Variation	DF	SS	MS	F
A. Beliefs Subtest				
Sex	1	14.02140	14.02140	.25729
Teacher	6	3058.74374	509.79062	9.35473**
Sex by Teacher	6	598.62766	99.77127	1.83082
Error	497	27084.25956	54.49549	
B. Content Subtest				
Sex	1	.16752	.16752	.00180
Teacher	6	3420.38101	570.06350	6.12385**
Sex by Teacher	6	1265.32301	210.88716	2.26543*
Error	497	46265.29205	93.08911	
C. Total Values Test				
Sex	1	11.12368	11.12368	.05084
Teacher	6	12572.84970	2095.47495	9.57649**
Sex by Teacher	6	3559.56576	589.26096	2.71125*
Error	497	108750.84810	2188.1458	
CONTROL GROUP				
A. Beliefs Subtest				
Sex	1	228.7411	228.7411	3.9086 *
Teacher	8	702.7928	87.8491	1.5011
Sex by Teacher	8	517.6332	64.7041	1.1056
Error	244	14279.6730	58.5232	
B. Content Subtest				
Sex	1	66.4953	66.4953	.7501
Teacher	8	998.4190	124.8023	1.4078
Sex by Teacher	8	475.1700	59.3962	.6700
Error	244	21631.4551	88.6535	
C. Total Values Test				
Sex	1	541.8957	541.8957	2.5097
Teacher	8	3031.4553	378.9319	1.7549
Sex by Teacher	8	1614.5524	201.8190	.9347
Error	244	52685.2218	215.9230	

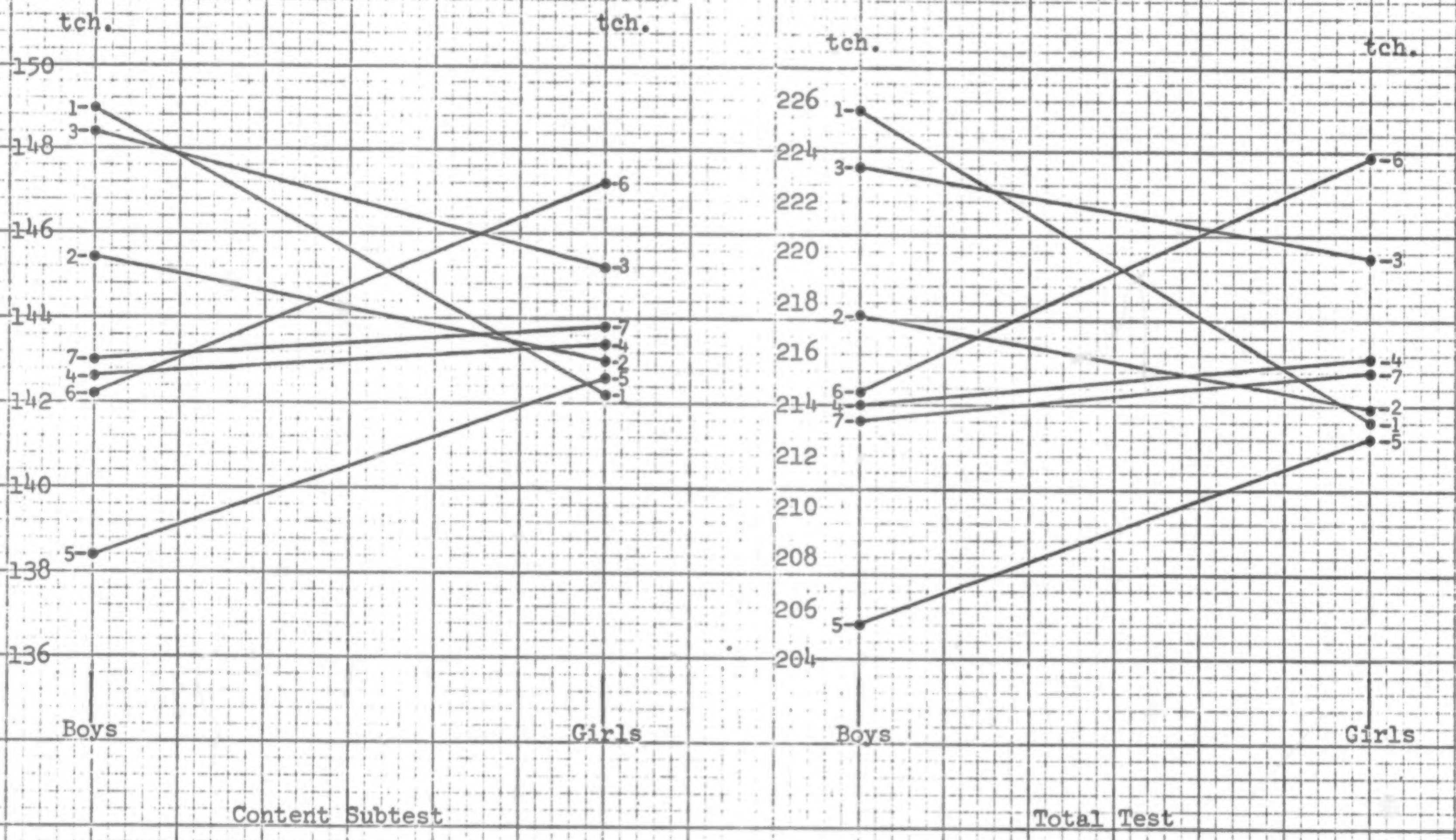


Figure 3

Diagram of Teacher by Sex Interaction for E Classes on
the Content Subtest and Total Test, Pretest Data.

12-280

10 Squares to the Inch

TABLE 11

Summary of Analysis of Variance Comparing Pre Test Means on the Values Test and Subtests for E and C Groups

Source of Variation	DF	SS	MS	F
A. Beliefs Subtest				
Treatment	1	55.1787	55.1787	.9137
Sex	1	1128.6581	1128.6581	18.6890**
Treatment by Sex	1	365.2417	365.2417	6.0521
Error	769	46441.1395	60.3915	
B. Content Subtest				
Treatment	1	51.7343	51.7343	.5302
Sex	1	270.7009	270.7009	2.7738
Treatment by Sex	1	.5113	.5113	.0052
Error	769	75047.1587	100.4647	
C. Total Values Test				
Treatment	1	213.7694	213.7694	.8953
Sex	1	2504.8521	2504.8521	10.4910**
Treatment by Sex	1	393.3487	393.3487	1.6474
Error	769	183608.8824	238.0609	

In summary the analysis of variance for pre test data indicated that real differences existed among classes of E group teachers on all three variables but this generalization must be qualified by the interaction effect with sex noted on the content subtest and total test. Control group girls scored significantly higher than C group boys on the beliefs subtest, and this result was the major cause of significant sex differences noted when means on this variable were compared. No significant differences were found between the means of E and C groups on any variable. While differences existed within E and C groups, the total groups were apparently homogeneous on the pre test.

The F-ratios obtained for post test analysis of the differences within E and C groups are presented in Table 12. Teacher differences were found among E classes on the three tests, but the sex by teacher interaction revealed by the pre test analyses for the content subtest and total test was not found in the post test data. No differences were found for the control groups on any of the tests; analysis of the pre test data had revealed differences between C boys and girls on the beliefs subtests but no such differences were found on the post test.

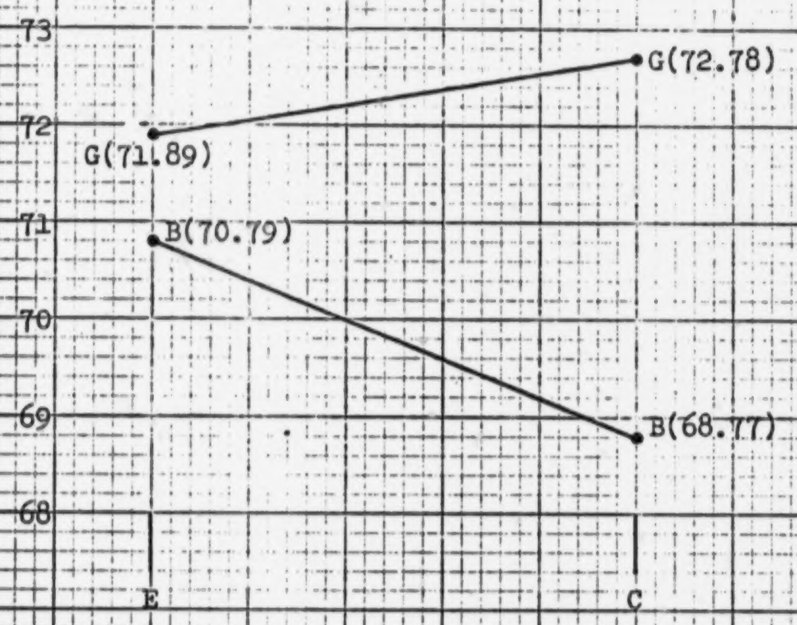


Figure 4

Diagram of Treatment by Sex Interaction for E and C Groups on the Beliefs Subtest, Pre Test Data.

10 Squares to the Inch
12-280

TABLE 12

Summary of Analysis of Variance on Post Test Means
on the Values Test and Subtests for
E and C Groups

EXPERIMENTAL GROUP

Source of Variation	DF	SS	MS	F
A. Beliefs Test				
Sex	1	56.7447.	56.7447	.9998
Teacher	6	5528.3155	921.3859	16.2342**
Sex by Teacher	6	282.9798	47.1633	.8310
Error	444	25199.6129	56.7558	
B. Content Subtest				
Sex	1	21.9631	21.9631	.1792
Teacher	6	10179.6842	1696.6140	13.8489**
Sex by Teacher	6	223.7572	37.2929	.3044
Error	444	54394.1459	122.5093	
C. Total Values Test				
Sex	1	8.1052	8.1052	.0291
Teacher	6	29693.6749	4948.9458	17.7951**
Sex by Teacher	6	665.4005	110.9000	.3988
Error	444	123479.6384	278.1072	
CONTROL GROUP				
A. Beliefs Test				
Sex	1	24.1072	24.1072	.4000
Teacher	8	487.6756	60.9594	1.0116
Sex by Teacher	8	472.4608	59.0576	.9800
Error	222	13378.0163	60.2613	
B. Content Subtest				
Sex	1	364.5834	364.5834	2.5313
Teacher	8	1555.3685	194.4210	1.3499
Sex by Teacher	8	751.5452	93.9431	.6523
Error	222	31974.1995	144.0279	
C. Total Values Test				
Sex	1	576.1905	576.1905	1.8922
Teacher	8	3133.9140	391.7392	1.2865
Sex by Teacher	8	1893.9827	236.7478	.7775
Error	222	67601.2997	304.5103	

Table 13 presents the F-ratios obtained for the analysis of variance comparing E and C groups on the post test. Significant differences favoring the E group were found on all three variables. Since no differences were found on the analysis for the pre test data, these results indicate that the experimental materials effected significant differences on this measure. The analysis also revealed sex differences on the beliefs subtest and the total test. The sex differences in both cases favored girls over boys.

TABLE 13

Summary of Analysis of Variance Comparing Post Test Scores on the Values Test and Subtests for E and C Groups

Source of Variation	DF	SS	MS	F
A. Beliefs Subtest				
Treatment	1	2762.4955	2762.4955	41.9555*
Sex	1	719.9978	719.9978	10.9350**
Treatment by Sex	1	92.5399	92.5399	1.4055
Error	695	45761.2293	65.8434	
B. Content Subtest				
Treatment	1	10261.4863	10261.4863	69.5344**
Sex	1	149.2134	149.2134	1.0111
Treatment by Sex	1	339.6843	339.6843	2.3018
Error	695	102564.1327	147.5742	
C. Total Values Test				
Treatment	1	23672.4203	23672.4203	70.8047**
Sex	1	1524.7517	1524.7517	4.5606*
Treatment by Sex	1	786.8190	786.8190	2.3534
Error	695	232362.1719	334.3340	

Discussion of the Results of the Values Test Data Analysis. The Chi-square and analysis of variance for data from the Values Test permits several general conclusions:

1. Despite the fact that chi-square values were considered significant only if they met a highly reliable test, significant values were found for the E group on approximately one-half of the items in the test. Moreover, the direction of the changes from pre to post test were toward the position encouraged by the course materials. These results constitute overwhelming evidence that the course materials had a great impact upon the performance of the E group.

2. While the number of significant changes on the content subtest was larger than on the other subtest, the proportion of total items to changes was approximately the same on both measures. Thus, the course materials were apparently effective in producing the same relative changes on both subtests.

3. The chi-square analysis raised the question as to why students in E classes accepted certain ideas related to the social basis of man's behavior but apparently rejected others. The reason for students' rejection of the course position on certain items is difficult to determine, but several explanations are possible. As noted earlier, the items may have simply confused students. Another possibility is that students can accept the ideas related to socialization at some levels but reject them when deep seated beliefs are threatened. For example, students in the E groups disagreed readily with items 2 and 3 (see Table 8) which measure a belief in the social nature of much of man's behavior. These results are consistent with the position of the course. The situation presentedin those items, however, are rather remote from "real" life situations or issues. Other items which tested beliefs about race, which may be assumed to be more "real" and less remote, were not as readily accepted by students. Thus it may be easy for students to apply concepts related to the social basis of man's behavior when situations are remote and simple, but more difficult for them to apply the same concepts to situations involving so-called "racial" differences.

While the precise reasons for this apparent paradox are unclear, the situation has implications for both teachers of this course and developers of the material. Teachers should direct more effort at placing students in "social problems" situations which demand application of the principles related to the social basis of man's behavior. Since the results of this study indicate that ideas presented in the socialization unit are not immediately transferred and applied to topics in minority group relations, teachers must be certain that all units are taught fully and that principles taught early in the course are explicitly reemphasized later on. Developers of the course should examine the materials carefully to insure the presence of activities and data which lead to those principles. Specifically, these suggestions might be implemented by lessons in the Minority Groups unit which deal with the effects of life in a slum environment, the psychological damage inherent in racial discrimination, and so on.

4. Results from the analysis of variance are interpreted as supporting the conclusions that the course materials produce greater changes on the Values Test among the E groups and that the materials were generally effective in both content and belief areas.

5. Generally speaking, the course materials were effective on this measure with both boys and girls. Sex differences which were revealed by the analysis favored girls over boys, but the differences in each case were present on the pre test analysis

as well as post. Three interaction effects involving performance by sex were noted for the pre test, but these effects were not continued on the post test. There are several possible explanations of these results, but the analysis did not suggest which one was most appropriate.

C. The Verbal Association Tests

As noted earlier, data from all subjects and from teachers were collected by means of verbal association measures. The major purpose of these tests was to obtain an index of the language habits among the major concepts taught in the course. Such an index can provide assessments of changes in verbal behavior over time, of the ways in which students relate concepts which were important in the subject matter, and of the degree to which the relationships as seen by students are similar to the way in which teachers structure the subject. (A more complete description and theoretical discussion of verbal association techniques is contained in Technical Report No. 67-3 available from the Minnesota National Laboratory.[13])

The verbal association data from this investigation were analyzed in several ways. A chart showing the "structure" of sociology was prepared from data obtained from teachers. Intersection Coefficients were obtained for all students groups in pre and post tests; the coefficients are the percentage of responses in common for the same word in pre and post tests and the percentage of common responses for each pair of concept words on pre and post tests. Also, response distributions were obtained for all concept words on pre and post tests for each class and total E and C groups. These distributions permitted analysis of the responses to each word on both administrations. The limited space available in this report prevents a complete discussion of all of the data collected from students. Rather, the data from two E classes and one C class chosen at random will be discussed here. Further discussion of the balance of the data and tables of word association norms will be presented in subsequent technical reports.

The Data from Teachers. During the course of the investigation, E teachers were asked to draw a diagram of the ways in which they would structure the relationships among the 24 concept words. These diagrams were examined, and a composite chart for the group was prepared. This diagram is presented in Figure 5. Single lines connecting concepts on the chart indicate that 50 to 99 percent of the teachers related the two words; double lines indicate that all teachers made that connection. Figure 5, then, is an estimate of the teachers' psychological structure of the discipline of sociology.

Examination of Figure 5 reveals that teachers see two major clusters of concepts. One cluster focuses on concept words related to the social basis of man's behavior (culture and socialization), while the other, smaller cluster has biological at its core and consists of concepts related to the physical basis of man's behavior. Both major clusters are joined in the diagram by two linking concepts, human being and human behavior, suggesting that teachers see social and biological considerations as being related by these two concepts.

Analysis of the data in Figure 5 revealed four categories of relationships based upon the frequency with which each concept was related to the others. Four concepts (culture, socialization, role, and biological) were linked to four or more other words. Two concepts (expectations and values) were related to three other words, six concepts were related to two others, and eleven were related to just one other concept. (One concept, theory, was not connected to any of the others in more than 50 percent of the cases.)

An interesting aspect of the data in Figure 5 is its relationship to words considered to be the most important to the course by its developers. During the previous year, developers of the course had ranked the concepts as to their importance in the subject matter model used in building materials.[14] The three most important concepts in that ranking were culture, socialization, and role, all of which were related to four or more words on the teacher diagram. Thus, it appears that teachers linked the most important words in the subject matter to more other words in the list of key concepts than was the case for words judged to be less important.

The data from Figure 5 provide a rough framework for the analysis of data collected from students. That is to say, one might assume that the course materials would be filtered through teachers' perceptions of the discipline and thus predict that the verbal behavior of students would change appreciably from pre to post testings for those concepts for which teachers saw a larger number of relationships.

Students Responses. One analysis of data collected from students was in terms of the similarity in the associative meaning of words. This analysis yielded an Intersection Coefficient (IC) for each word on pre and post testing and for each pair of words in the concept list.

Table 14 shows the pre-post IC's for each word for the two E classes and the one C class chosen for discussion. The figures in the table indicate the percentage of commonality in each class between pre and post tests. Low percentages denote great change, and generally speaking, one would expect a high rate of change for concepts which had been the object of teaching.

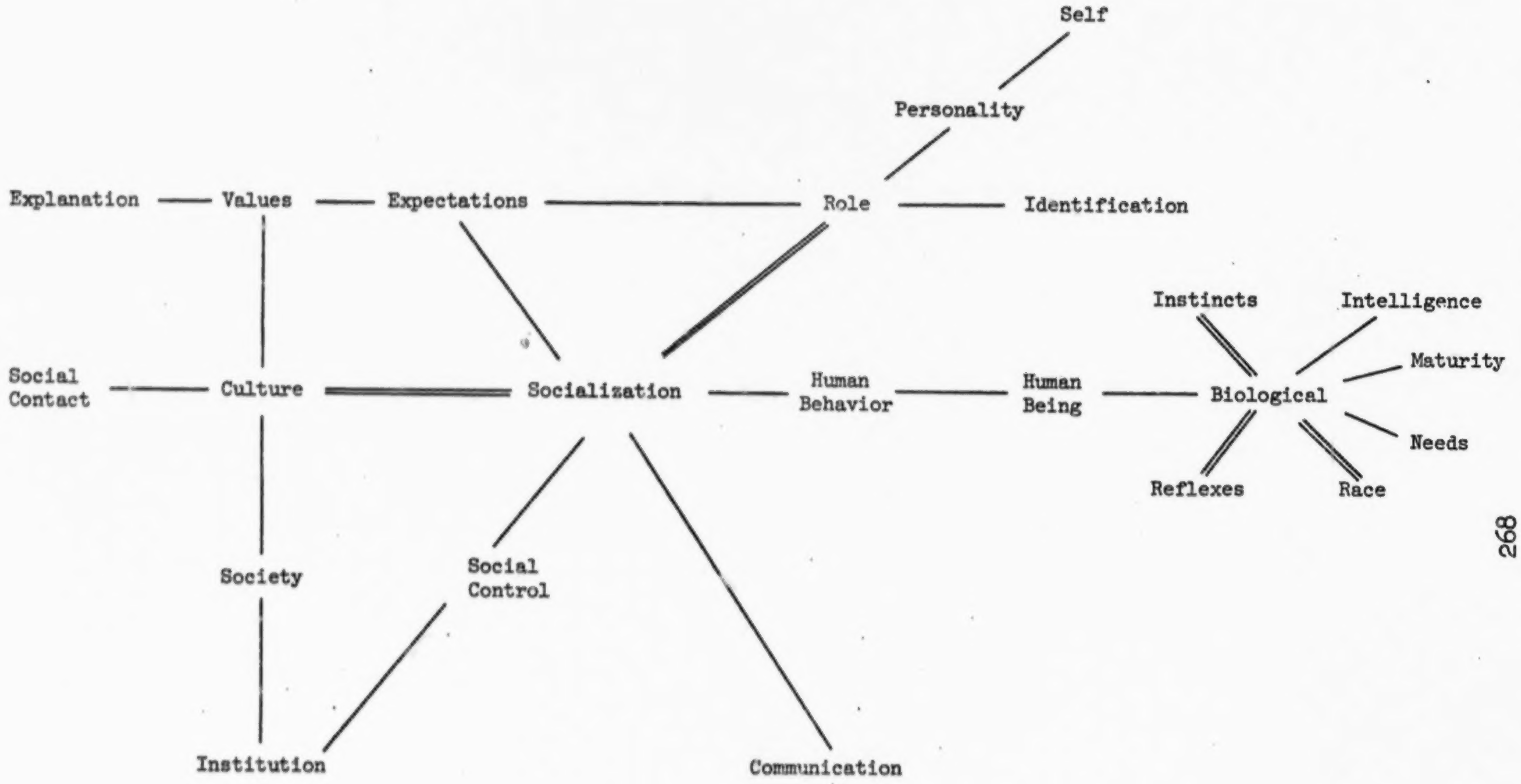

Self
Personality
Explanation
Values
Expectations
Role
Identification
Instincts
Intelligence
Maturity
Social Contact
Culture
Socialization
Human Behavior
Human Being
Biological
Needs
Reflexes
Race
Society
Social Control
Institution
Communication

Figure 5

Composite Relationship Among Concepts in Sociology as Perceived by E Teachers

(Single connecting line indicates agreement by at least 50% of E teachers; double connecting line indicates 100% agreement.)

TABLE 14

Intersection Coefficients Between Pre and Post Test Responses to All 24 Concept Words for the Three Selected Classes

Stimuli	E_1	E_2	C
Biological	19	27	38
Communication	62	80	42
Culture	05	13	19
Expectations	10	23	12
Explanation	57	37	15
Human Behavior	33	34	38
Human Beings	05	70	58
Identification	43	64	48
Instincts	10	20	31
Institution	19	37	31
Intelligence	10	60	54
Maturity	43	23	35
Needs	19	45	58
Personality	19	27	15
Race	29	34	35
Reflexes	24	50	31
Role	14	37	31
Self	71	80	62
Social Contact	19	17	15
Social Control	14	27	15
Socialization	00	23	27
Society	29	54	31
Theory	19	34	19
Values	24	50	23
$\bar{X}$	25	40	33

As the table shows, the E_1 class had the greatest rate of change ($\bar{X}$ = 25), followed by C (33) and E_2 (40). In all three classes, there was great variation among concepts in terms of the degree of change.

The relatively great change for the C class (greater than for the E_2 class) was an unexpected result since the subject matter in this class was not directly related to the concepts. At present the amount of change must be attributed to unknown factors in the environment of these students, although the possibility exists that content from courses such as history and general science overlapped with content from the "Man and Culture" course, and, hence, produced changes in C class responses.

To determine what relationships contributed to the changes in associative meanings among the three classes, the concepts for each class were ranked from high to low in terms of percent of common responses, and a rank order correlation was computed for each pair. The coefficient between E_1 and E_2 was .46 ($p < .05$), for E_1 and C, .29 ($p > .05$), and for E_2 and C, .70 ($p < .001$). Thus, the E_2 and C classes were similar in terms of the order in which responses changed, while the two E classes were less similar.

Another aspect of this analysis was the degree to which common responses changed for the four concepts identified by the teachers as the ones which had the highest number of relationships. Table 14a consists of data drawn from Table 14 and summarizes the IC's for these four concepts.

TABLE 14a

Summary of the Pre-Post IC's for the Selected Classes in the Four Key Concepts

Concept	Class Intersection Coefficients		
	E_1	E_2	C
Biological	19	27	38
Culture	05	13	19
Role	14	37	31
Socialization	00	23	27
$\bar{X}$	9.5	25	29

This summary shows changes of a high magnitude in all three classes with by far the greatest change in the E_1 class. The mean percent of change in these four concepts was greater in all cases than the mean change for all concepts. While changes within both E classes were greater than within the C class the difference is not sufficient to warrant a claim that E and C classes differed in this analysis. The results, then, were similar to those obtained from the rank order correlations previously discussed.

Intersection Coefficients were also computed for the responses in common among all possible pairs of the 24 concept words in both the pre and post test data. This analysis yields the degree to which two words have a common association meaning. Since many of the concepts derive their associative meaning from

TABLE 15

Percent of Responses in Common Among All Possible Pairs of the 24 Concept Words for the F_1 Class on the Two Test Occasions

Stimulus Words	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Biological		--	--	02	--	02	02	--	02	--	--	--	--	02	--	02	--	02	02	02	--	02	--	--
2. Communication	--		02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	09	02	05	--	--	--
3. Culture	--	--		--	--	--	--	--	02	07	--	--	--	02	02	--	--	--	02	--	05	05	--	--
4. Expectations	--	--	05		--	--	--	02	02	--	--	--	02	--	--	02	--	--	07	02	--	02	--	--
5. Explanation	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	05	--
6. Human Behavior	--	--	05	05	--		02	--	02	--	--	--	--	10	--	02	02	05	--	07	--	--	--	--
7. Human Beings	02	--	05	--	--	05		--	--	--	--	--	--	02	--	--	02	02	02	--	02	07	02	--
8. Identification	--	--	--	--	--	--	02		02	--	--	--	--	--	--	--	--	--	02	--	--	--	--	--
9. Instincts	--	--	05	02	--	02	--	--		--	--	--	--	05	--	--	--	02	02	02	--	--	--	02
10. Institution	02	--	--	--	--	--	--	--	--		--	02	--	--	--	--	--	--	05	02	05	02	--	--
11. Intelligence	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--
12. Maturity	--	--	05	02	--	02	02	--	--	--	02		--	--	--	--	--	--	--	--	--	--	--	--
13. Needs	60	--	05	--	--	--	--	--	--	02	--	--		02	--	--	--	02	--	--	--	--	--	02
14. Personality	--	--	07	07	--	09	09	02	02	--	--	02	--		--	02	--	05	--	05	02	--	02	--
15. Race	02	--	05	--	--	--	02	--	--	--	--	--	--	02		05	--	--	--	--	--	--	--	--
16. Reflexes	--	--	02	02	--	05	--	--	36	--	--	--	--	05	--		--	--	02	02	--	02	--	--
17. Role	--	--	02	30	--	12	--	--	02	--	--	--	--	05	--	02		--	--	--	--	02	--	--
18. Self	--	--	--	--	--	--	05	02	--	--	--	--	--	07	--	--	--		--	--	--	--	--	--
19. Social Contact	--	05	12	--	--	--	07	02	02	02	--	--	02	05	08	--	--	02		05	10	07	--	--
20. Social Control	--	05	07	02	--	02	02	--	02	--	02	--	02	05	02	02	02	--	07		05	02	--	--
21. Socialization	--	--	07	02	--	07	--	--	--	--	02	08	--	02	02	--	--	--	24	--		07	--	--
22. Society	--	--	60	--	--	02	17	--	--	--	--	02	02	02	05	--	--	--	12	05	07		--	--
23. Theory	--	--	--	--	05	--	--	--	--	--	02	--	--	--	--	--	--	--	--	--	--	--		--
24. Values	02	--	02	02	--	--	--	--	--	02	--	--	05	--	--	--	--	02	--	--	02	--	--	

PRE

POST

TABLE 16

Percent of Responses in Common Among All Possible Pairs of the 24 Concept Words for the E_2 Class on the Two Test Occasions

Stimulus Words	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Biological		—	01	—	01	—	03	—	05	—	—	—	—	01	—	—	—	01	—	—	—	—	01	—
2. Communication	—		—	—	01	—	—	01	—	—	—	—	—	—	—	—	—	—	01	01	01	—	—	—
3. Culture	—	—		01	—	01	01	—	03	04	—	—	—	01	01	—	—	—	03	01	05	03	—	—
4. Expectations	—	02	03		—	03	01	—	03	01	—	—	05	01	—	—	—	—	03	03	03	03	01	03
5. Explanation	02	02	02	—		—	—	01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	08	—
6. Human Behavior	—	—	09	06	02		01	—	01	—	—	—	—	08	—	04	04	—	01	08	01	03	—	—
7. Human Beings	02	—	08	02	—	06		01	04	—	—	—	—	04	—	—	—	04	11	01	08	18	—	—
8. Identification	—	—	02	02	—	02	04		—	—	—	—	—	01	—	—	—	03	—	01	—	—	—	—
9. Instincts	03	—	04	06	—	04	04	02		—	03	—	—	04	03	03	—	—	01	05	04	03	—	—
10. Institution	—	—	08	08	02	04	04	02	03		—	—	—	—	—	—	01	—	01	—	01	01	—	—
11. Intelligence	—	—	02	02	—	04	02	02	—	02		01	—	03	—	—	—	—	—	01	—	—	—	—
12. Maturity	—	—	02	—	—	06	04	02	—	—	03		—	—	—	—	—	—	—	—	—	—	—	—
13. Needs	02	—	—	04	—	—	—	02	—	—	—	—		—	—	—	—	—	—	—	—	—	—	03
14. Personality	—	02	09	06	—	08	08	06	04	04	09	03	—		—	—	01	05	03	05	03	01	—	—
15. Race	02	—	11	02	—	03	08	02	03	04	—	—	02	06		—	—	—	—	—	—	01	—	—
16. Reflexes	—	—	—	—	—	—	—	—	09	—	02	—	—	—	—		01	—	—	—	—	—	—	—
17. Role	—	02	06	06	—	12	12	04	03	09	04	04	—	12	04	—		—	—	—	—	—	—	—
18. Self	—	02	—	03	—	—	03	06	—	—	02	03	—	09	—	—	—		—	—	01	—	—	—
19. Social Contact	—	17	04	02	03	06	04	02	03	08	02	02	—	04	04	—	08	02		02	14	14	—	—
20. Social Control	03	02	03	04	—	11	03	02	03	03	06	02	03	12	04	02	06	02	03		05	01	—	—
21. Socialization	03	03	08	03	—	14	08	02	04	11	04	04	—	06	04	—	12	02	11	08		12	—	—
22. Society	02	—	08	02	08	04	17	02	03	04	—	—	—	06	04	—	06	—	06	06	06		—	—
23. Theory	03	—	—	—	11	—	02	02	02	02	02	02	—	03	—	—	02	02	—	02	02	—		—
24. Values	02	—	02	02	—	—	02	—	—	—	—	—	03	—	—	—	—	—	—	—	02	02	—	

PRE

POST

TABLE 17

Percent of Responses in Common Among All Possible Pairs of the 24 Concept Words for the C Class on the Two Test Occasions

Stimulus Words	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Biological		—	02	—	—	04	02	—	—	—	02	—	—	02	—	—	02	—	—	02	—	02	04	—
2. Communication	02		—	02	—	04	09	02	04	02	04	04	02	04	04	—	—	—	04	02	04	04	—	—
3. Culture	02	02		—	02	—	—	—	—	—	—	—	—	—	—	—	—	—	13	04	07	06	—	—
4. Expectations	06	—	02		—	02	02	02	02	—	—	02	—	—	—	—	—	—	02	02	02	02	06	—
5. Explanation	—	02	—	—		—	—	02	—	—	—	—	—	—	—	—	—	—	02	—	—	—	06	—
6. Human Behavior	02	02	—	—	02		02	—	—	—	04	02	—	06	04	—	02	02	—	—	02	02	—	—
7. Human Beings	—	02	06	—	—	—		—	02	—	—	02	—	06	02	—	—	—	06	02	11	07	—	—
8. Identification	—	02	02	—	02	—	02		—	—	—	02	—	—	—	—	—	—	02	02	04	02	—	—
9. Instincts	04	—	—	—	—	02	02	—		—	06	02	—	04	—	—	—	—	—	02	—	—	—	—
10. Institution	02	02	—	—	—	—	—	—	—		—	02	—	—	—	—	—	—	02	04	02	—	04	—
11. Intelligence	—	—	04	02	—	02	04	—	—	—		04	—	06	02	02	—	—	—	02	—	02	—	—
12. Maturity	—	—	—	02	—	02	02	—	—	—	02		—	04	—	02	—	02	02	04	04	02	—	—
13. Needs	—	—	—	02	—	—	—	—	—	—	—	—		—	02	—	04	—	—	—	—	—	—	04
14. Personality	04	02	02	—	02	10	02	04	02	—	02	02	—		—	02	02	06	—	04	—	—	—	—
15. Race	—	—	04	—	—	—	—	—	—	—	—	—	—	—		02	—	—	—	—	—	02	—	02
16. Reflexes	—	—	—	—	—	—	—	—	04	—	—	—	—	—	—		—	—	—	02	—	—	—	—
17. Role	—	—	—	—	—	02	—	—	—	02	—	—	—	02	—	—		—	02	—	—	—	02	—
18. Self	02	—	—	—	—	02	—	—	—	—	02	—	—	06	—	—	—		—	—	02	—	—	—
19. Social Contact	02	10	02	—	—	02	04	02	—	—	—	—	—	04	—	—	—	—		04	11	09	—	—
20. Social Control	—	04	02	02	—	04	02	02	02	02	—	02	—	06	—	—	—	02	06		06	06	02	—
21. Socialization	02	08	02	—	—	06	08	02	—	02	—	—	—	04	—	—	—	—	08	06		20	—	—
22. Society	—	02	06	—	—	02	16	02	—	—	—	—	—	02	—	—	—	—	04	06	18		—	—
23. Theory	06	02	—	—	04	—	—	02	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—
24. Values	02	—	08	02	02	04	—	—	—	—	—	—	—	04	—	—	—	—	—	—	—	04	02	

PRE

POST

outside the subject matter and, hence, have meanings apart from those obtained from studying the course material, the percentage of responses in common was not expected to be large, and a percentage more than 10 was considered sufficient to warrant further analysis and discussion.

Tables 15-17 present the results from this analysis. An inspection of the tables shows that the E_1 class had only two pairs of words with more than 10 percent responses in common on the pre test and nine pairs of words over 10 percent on the post test. Of these nine pairs, five had more than 20 percent common responses. The E_2 class had five over 10 percent on the pre test and 13 on the post, while the C class had four on both occasions. Thus, the E groups increased appreciably in terms of the number of times responses to each pair of words was in common, indicating that the course "Man and Culture" elicits more common associations among the concepts stressed in the course.

This conclusion is substantiated when the total frequency of common responses on the pre test is compared to the frequency on the post. The E_1 class had a total frequency of 74 on the pre test (that is, common responses were noted for 74 pairs of words on the pre test); this number increased to 94 on the post test. The E_2 class had 88 common responses on the pre measure and 169 on the post. On the other hand, the C class had 107 on the pre test and 98 on the post test.

The data presented in these tables can also be analyzed in terms of the concepts for which the teachers made a relatively large number of relationships (see Figure 5). Theoretically, the four concepts in this category (biological, culture, socialization, and role) should have a relatively high ratio of connections to other concept words. Table 18 summarizes the pre post connections among these words.

TABLE 18

Summary of IC's for Selected Classes on
Four Key Concepts in the Course

	Class					
	E_1		E_2		C	
	Pre	Post	Pre	Post	Pre	Post
Biological	10	5	7	10	9	12
Culture	8	15	12	17	6	13
Role	3	7	4	17	6	3
Socialization	8	9	12	20	12	11

The E_2 class made substantially more associations with the four key concepts on the post testing than on pre. The E_1 class also increased the number of associations, but only slightly more than did the C group. Thus, it appears that the common responses to these four concepts increased from pre to post but not consistently between the E groups. This result suggests that the increase may be more a function of the teacher's perception than the course materials, but this contention could not be examined in the data at hand.

It should be noted that in this analysis the changes observed for the E_2 class were greater relative to the other two classes than was true in analyses previously discussed. This outcome suggests that there was variability in the type of change among all three classes. That is, E_1 changed substantially in several ways while E_2 and C changed in other ways. At times, E_1 and E_2 appear to have similar change patterns while in other analyses, E_2 and C are similar. It seems that variables not related to the course materials affect the changes observed in all three classes.

The analyses discussed above have examined solely the quantitative aspects of the verbal association data. These data can also be used to make judgments concerning the quality of the responses to items. In such an analysis the actual responses of students are examined to determine whether the responses of an E class or the total E group can be considered appropriate to the course taught to them. This qualitative analysis is especially useful in revision of the course materials.

The responses to the concepts socialization and self by the two E classes and the C class will serve as illustrations as to how a qualitative analysis can be conducted. The first concept was selected because of its high rate of change from pre to post in all three classes, while the second was chosen because of the relative lack of change in pre to post tests. Responses from pre and post testings were placed in one of three categories: definitely related to course material, moderately related, and extraneous.

The results for the analysis of the responses to the concept socialization indicate that on the pre test, all three classes had a majority of responses extraneous to the subject matter. The same results were obtained for the C group on the post test, but both E groups had a majority of responses in the "definitely related" category on this administration. The E_1 class, in fact, had over 90 percent of responses in this category. Thus, although the responses from all three groups to the concept socialization changed greatly from pre to post, it appears that the E group responses were in a direction related to the course while the C group change was due

NOTES

1. Edgar Bruce Wesley, *Teaching Social Studies in High Schools*. (Boston: D. C. Heath,1950) p. 85.

2. U. S. Department of the Interior, Bureau of Education, *The Social Studies in Secondary Education*. (Washington: Government Printing Office, 1916).

3. Jerome S. Bruner, *The Process of Education*. (Cambridge: Harvard University Press, 1961), p. 33.

4. Jerome S. Bruner, Jacqueline Goodnow, and George A. Austin, *A Study of Thinking*. (New York: Wiley, 1965).

5. Edward W. Beaubier, "Capacity of Sixth Grade Children to Understand Social Science Generalizations." *Dissertation Abstracts*, 23, January, 1963, 2439.

6. G. Cammarota, "New Emphasis in Social Studies for the Primary Grades." *Social Education*, 27, April, 1963,pp. 205-207, 211.

7. Bernard Spodek, "Developing Social Science Concepts in the Kindergarten." *Social Education*, 27, May, 1963, pp. 253-256.

8. Theodore Kaltsounis, "A Study of Third Graders' Knowledge of Social Studies Content Prior to Instruction." *Dissertation Abstracts*, 22, November, 1961, 1528.

9. Garney L. Darrin, "Economics in the Primary Grades." *Grade Teacher*, 78, September, 1960, pp. 54-55, 110.

10. Dorothy Mugge, "Precocity of Today's Young Children Real or Wishful?" *Social Education*, 27, December, 1963, pp. 436-439.

11. The rationale for the evaluation system is based largely upon the suggestions of Lee J. Cronbach. See, for example, "Evaluation for Course Improvement" by Cronbach in Robert W. Heath (ed.), *New Curricula*. (New York: Harper and Row, 1964) pp. 231-248.

12. Michael Scriven, "The Methodology of Evaluation" (Mimeographed, 1965).

13. William E. Gardner and Paul E. Johnson, "Language Habits in the Behavioral Sciences: Their Role and Representation in Instruction," Technical Report No. 67-3 of the Minnesota National Laboratory (Mimeographed, 1967).

14. *Ibid*., p. 4.

to substitutions in the extraneous category. The C group change, then, reflects experiences which altered the meanings of important concepts but not in ways consistent with the objectives of the course.

Different results were obtained for the concept self. On the pre test, all three classes had a majority of responses in the moderately course related category and this did not change on the post administration. Apparently, the course materials designed to teach this concept did not function to produce changes in responses to this word or the pattern of meanings given to the word by students on the pre measure was very similar to the meanings the course attempted to develop.

The response distributions of all E and C groups revealed wide differences among the concept words. The distributions for some words contained a very large number of responses and could be described as "flat" distributions. The responses for other words were far more "peaked" in the sense that there were fewer responses to the concept words and, consequently, a high frequency for some words.

Examination of these data suggested two hypotheses which will be tested in subsequent analysis: (1) words with "peaked" response distributions on the pre test will change less under the impact of the course materials than words with "flat" distributions; and (2) teaching strategies which explicitly attack the responses with the greatest frequency on the pre test will be most conducive to bringing about appropriate changes in the response distributions on post testing. Verification of these hypotheses would indicate that teachers would be able to predict the concepts which will be most difficult to change but which would be susceptible to change by explicit teaching techniques.

In order to obtain some estimate of the perceived difficulty of the concepts, students were asked to judge how difficult each concept would be to define and explain to another student. The data obtained from the difficulty judgment measure were categorized on the basis of whether students thought the words would be "difficult," "moderately difficult," or "easy" to define. Table 19 presents these data for three classes.

Both E classes showed a general change toward the "difficult" end of the continuum, and the C group showed the same tendency to a lesser degree. The data for the four concepts designated by teachers as having many relationships were categorized in the same fashion, but no clear pattern was revealed between E classes or E and C. These analyses, then, suggest that the course materials do not affect students' perception of the difficulty of concepts in any consistent fashion.

TABLE 19

Summary of Student Judgments About Word Difficulty

	Class					
	E_1		E_2		C	
	Pre	Post	Pre	Post	Pre	Post
Easy	51%	40%	49%	36%	50%	44%
Moderately Difficult	26%	38%	33%	38%	28%	34%
Difficult	23%	22%	18%	26%	22%	22%

Discussion of the Results of the Analyses of the Word Association Data. The major purpose of collecting word association was to acquire insights into the ways in which students structure material from the course. While the analyses described in this report dealt with only a small portion of the available data, they do permit several broad statements regarding the verbal behavior of E and C students.

1. Although changes in E class responses generally tended to be greater than changes in C classes, the magnitude of the differences between the two was not large. This indicates that the response patterns of seventh grade students to concept words in sociology change over time regardless of stimulation from structured course materials. However, it is equally apparent that the response patterns of the C group were not entirely similar to those for the E classes. Thus, although factors in the C class environment produced changes, these changes were not consistently in the same direction as were E class changes, and the course materials had effects beyond those which would have occurred because of maturation, content from other social studies, and so on.

2. The majority of differences in change patterns between the E classes and the C class can be attributed to the fact that the post test responses of the E groups were far more "list-related" than were the C class responses. Thus, one function of the course was to lead students to see more relationships among the concepts on the list. It appears, therefore, that students tend to "structure" sociology in terms of relationships among the concepts stressed in the course.

3. Wide variations existed between the two E classes in terms of the magnitude of change for responses to words on the list, indicating that the course materials did not have a consistent and common impact for all E students. Quite possibly, specific changes in the response patterns of E classes were due

to the approaches of teachers to the course content rather than to the course materials themselves.

SECTION V: CONCLUSIONS AND RECOMMENDATIONS

The basic purposes of this study were to assess the effects of a behavioral science course and to gain insights into the ways in which students develop a psychological structure for a behavioral science. Specific results of the study have been listed and described previously, and this section will discuss only the major conclusions related to the purposes of the investigation.

1. The course had very powerful effects on both boys and girls and, with some exceptions, on all intelligence levels, and "Man and Culture" can be classified as a successful endeavor. There can be little doubt that students are able to learn major ideas, principles, and concepts from sociology through the use of these materials, at least to the extent that such knowledge was measured by the instruments employed. True, the basis for this conclusion is a comparison made between classes which studied the course and those which did not. Nonetheless, it is perfectly obvious that the achievement of the E classes was due to the course and not to variables in the common environment of all seventh graders.

Consequently, there is no need to postpone behavioral science instruction until students reach late adolescence on the grounds that the material is too complex to permit understanding to develop earlier.

2. The study provided no significant information regarding the parts of the course which were most effective with students. The data indicated that content related to socialization was learned most well by students, but the reasons for this were unclear. The best general conclusion is that all of the content from sociology, as represented by the course, can be learned by seventh grade students.

3. Since legitimate questions were raised regarding the validity of the Values Test, one cannot conclude that the course alters the value system of those who study it. However, the magnitude of the difference between E and C classes on this measure again demonstrate the powerful effects of the course, even though the test may have measured cognitive rather than effective learning.

4. The bulk of the word association data has yet to be analyzed completely and only the most tentative conclusions are possible regarding the ways in which students develop a psychological structure for sociology. Yet it seems clear that in the classes examined and reported in this study, one

effect of learning sociology was to see relationships between and among key concepts. The precise nature or the configuration of the links that developed between concepts may be more related to the way the teacher sees sociology than to the structure implicit in the materials themselves.

5. The study also yielded information as to the ways in which the course could be improved which were not evident when feedback information was acquired from teachers and students. (a) While all intelligence levels were generally affected by the course, there is evidence that differences are not great between lower level E and C students. Course developers should give attention to building learning activities designed for lower ability students. (b) Exceptionally careful attention should be paid by teachers and developers to the problem revealed in the analysis of the Values Test. Specifically, the data suggest that students can use concepts related to the social basis of human behavior in situations unrelated to major societal problems, but that they have difficulty in using the same concepts in the interpretation of serious current issues, particularly those involving race. The "unrelated" situations stressed in the course were included to provide a context for introducing the concepts. It would be unfortunate if teachers assumed that automatic transfer would take place when societal issues are confronted. The data, of course, only *suggest* that inadequate provision is made for using sociological knowledge in the analysis of truly vital concerns, but the mere suggestion is important enough to warrant a reexamination of the materials and teaching strategies to insure that students are given the opportunity for such analysis.

6. The changes noted within the C group (gains from pre to post on the Content Test, differences in verbal behavior from pre to post) indicate that some of the course content is present in the environment of all seventh grade students. These results may mean that seventh graders generally are becoming more aware of their social environment as maturation occurs and that they are attempting to make "sense" out of it. As a result of this process they "learn" some of the ideas from sociology. Theoretically at least, the existence of what could be termed sociological knowledge in the common environment of seventh graders constitute a justification for teaching the course at this level, in that students are faced with the task of ordering and making sense out of the social world around them and this, after all, is what the course is designed to do.

7. Typically, a research study generates a number of provocative suggestions and directions for further investigations, and this one was certainly no exception. Literally, several dozen separate studies can be identified from among the broad

issues examined in the study. Rather than list specific projects, several areas of needed research will be presented.

a. This study dealt with groups which had different school experiences and the basis for comparison was always those learnings to which only one group had been exposed. Research is needed which explores the learning "missed" by the E groups and learning assumed to be encouraged in all social studies classes. For example, appropriate questions might be: What were the consequences of omitting U.S. history from the E group experience? Do real differences exist between E and C groups on the basis of learnings from U.S. history, or are such learnings present in the common environment of all students in seventh grade to the extent that real differences cannot be observed? What of achievement in skills areas? Is "Man and Culture" as effective as history courses in providing for the teaching of critical thinking?

b. Information is needed in the degree of retention of knowledge from sociology and the degree to which such knowledge when acquired in the seventh grade aids or hinders students' perceptions of the social world during later adolescence.

c. Information is also needed on the ways in which students actually structure sociological knowledge, or, stated differently, on the degree to which such knowledge is verbal in nature or is internalized by students. This suggests more work on the affective results with more careful analysis of changes in attitudes and values. More research using the word association technique is also appropriate in this regard, and the need is clear for further analysis of the association data obtained in this study. Word association data should also be obtained from sociologists, and these data compared with those from teachers and students.

The conclusions reached as a result of this study obviously constitute a gross rather than a refined analysis of the basic outcomes of teaching sociology to seventh graders. The study, however, was useful in that it provided a final stage in the formative evaluation of the "Man and Culture" course and established several benchmarks which could be helpful to persons concerned with teaching behavioral science in elementary and secondary schools.

APPENDIX A

All students in the investigation were given the following tests: "Man and Culture Test I," the Content test; "Man and Culture Test II," the Values test; and the "Test Booklet," containing instructions for the verbal association tests. On the Content and Values tests, students responded on Digitek answer sheets. On the Values test the choices were viewed as points on a continuum from "strongly agree" to "strongly disagree." By each item on the Content and Values test has been added a letter designation indicating within which subtest the item was placed. On the Content test, the letter *S* designates items included in the socialization subtest; the letter *I* designates items included in the institutions subtest; and the letter *M* designates items included in the minority group problems subtest. On the Values test, the letter *B* designates items included in the beliefs subtest, and the letter *C* designates items included in the content subtest. On the verbal association tests, students responded to concepts directly on the stimulus card. Concepts used for both tests were:

Biological
Communication
Culture
Expectations
Explanations
Human Behavior
Human Beings
Identification
Instincts
Institution
Intelligence
Maturity
Needs
Personality
Race
Reflexes
Role
Self
Social Contact
Social Control
Socialization
Society
Theory
Values

Appendix A

MAN AND CULTURE - TEST I

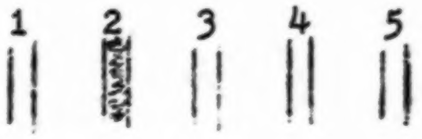
To the student: The answers you give will not be used by your teacher in giving you a grade. Please try to do your best on this test, but do not worry if you do not know the answers.

Answer Sheet: On your desk is an answer sheet. Fill in the blanks at the side beginning with school. Fill in your teacher's last name in the space marked "INSTRUCTOR". Fill in your class hour in the space marked "GRADE". In the space marked "TEST", put a number 1. Turn to the blanks for your name. Read the instructions and print your name, last name first. Fill in the grid below your name. Now look at the answer spaces. Remember that the numbers do not go all the way from the top to the bottom of the page. They go from 1 to 5 and then up to the second column for 6 through 10 and so on.

Directions: For each of the questions on this test five answers are given. Choose the one answer you think is correct or best. Find the space on the answer sheet that has the same number as the question you are answering. Carefully blacken in all of the space for the number of the answer that you have decided is the best answer to the question. If you should decide to change an answer, be sure that you completely erase your first choice.

EXAMPLE A: The President of the United States is

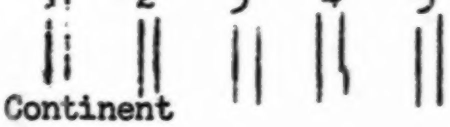
1) John F. Kennedy
2) Lyndon B. Johnson
3) Abraham Lincoln
4) Hubert H. Humphrey
5) John Lennon



EXAMPLE B: (Do this example together in class):

You live

1) in the United States
2) in Minnesota
3) on the Earth
4) on the North American Continent
5) all of the above



NOTE: Many of the questions in this test are like Example B. They have choices which say "all of the above" or "none of the above." You will have to read all possible answers to each question very carefully. Work quickly. Answer all questions.

(The letters in parentheses before each item denote whether that item was included in the socialization subtest (S), the institutions subtest (I), or the minority problems subtest (M).)

(S) 1. You can tell a person's race by:

1) the way he behaves
2) his fingerprints
3) the country that his ancestors came from
4) his religion
5) none of the above

(S) 2. All normal human beings have an erect posture, free moving arms and hands, focusing eyes, the ability to learn how to think, and the power of speech. These facts would tend to prove that:

1) all human beings are physically alike
2) some races are different than others
3) all human beings are physically more alike than they are different
4) men are better than animals
5) all of the above

(S) 3. John tried to run away when he was attacked by a group of boys who were much larger than he was. Running away in this situation is:

1) an instinct
2) a reflex
3) learned behavior
4) an unusual reaction
5) none of the above

(S) 4. As far as their basic inherited physical characteristics are concerned:

1) American Indians are more like Orientals than they are like white people
2) Negroes are very different from Eskimos
3) Europeans are more like Americans than they are like Arabs
4) Europeans and Indians are more alike than they are different
5) Baboons are more like human beings than they are like other large apes.

(S) 5. Which of the following statements does not express a value?

1) God is good
2) love your neighbor
3) work hard
4) cities are dirty
5) buildings are tall

(I) 6. Families can be found everywhere in the world. However, the ways people live and act in families differ from one society to another. Families everywhere include:

1) a mother, a father, and children
2) a group of related people who depend on one another
3) a group of people who have the same ancestors
4) a group of people who live together
5) none of the above

(I) 7. During the early 1800's Mary was captured by Indians when she was only one year old. She was adopted into an Indian family and raised with the other children in the family. When Mary became an adult she probably:

1) waited for her chance to run away and rejoin her real parents
2) was very unhappy because she remembered the civilized life that she had had as a baby
3) married a young Indian brave and lived like any other Indian woman of the tribe
4) tried to raise her children to respect and like the white men
5) became a spy for the white troops who were fighting against the Indians

(I) 8. Which of the following happenings would probably not affect the daily lives of most American families?

1) if the father lost his job
2) if the parents were divorced
3) if a new baby was born into the family
4) if the grandmother died
5) if the little brother became completely paralyzed

(I) 9. Mr. and Mrs. Jones have a two year old son named Johnny. When a new baby is born into this family:

1) Mrs. Jones will have new responsibilities
2) Johnny will have to learn how to handle a small baby
3) Mr. Jones will have to divide his time at home between his two children
4) Gramma and Grampa will have to remember to buy presents for both children
5) All of the above

(S) 10. Americans drink a lot of milk, while Chinese drink very little milk. This statement proves that:

1) Chinese are not as healthy as Americans
2) cows cannot survive in China
3) Americans have better knowledge of health than Chinese
4) people who eat a lot of rice do not have to drink milk in order to be healthy
5) none of the above

(I) 11. Tony Oliva and Sam Mele are members of the Minnesota Twins. They both can be seen at games, yet their behavior at games is different. What is the best explanation of this difference in behavior?

1) their salaries are different
2) their roles are different
3) one is more highly skilled than the other
4) one is more necessary to the team than the other
5) all of the above

(S) 12. Bill practices piano very hard because he wants to become just like his father who is a famous concert pianist. This is an example of:

1) identification
2) institutionalization
3) inheritance
4) all of the above
5) none of the above

(S) 13. In the situation described in question #12, Bill is:

1) learning a role
2) becoming socialized
3) learning some values
4) all of the above
5) none of the above

(S) 14. When social scientists talk about the "white" race and the "yellow" race they mean that:

1) Americans and Chinese are very different from one another
2) race is a very good way of telling one person from another
3) white people and yellow people will usually behave differently
4) some people have white skin and some people have yellow skin
5) people tend to inherit their behavior and their skin coloring

(M) 15. Suppose that you are a member of a group of Earthlings living among the Martians. Even though there are no physical or mental differences between Earthlings and Martians, the Martians discriminate against your group. What would be the most important first step if you wanted to bring an end to discrimination?

1) I would make sure all Earthlings became educated to understand the Martian way of life
2) I would convince the other Earthlings to take pride in the fact that we are just as good as the Martians
3) I would go to the Martian leaders and explain to them the unfairness of discrimination
4) I would try to convince the Martians that I was just as smart as they are
5) I would organize riots to impress the Martians with the power and anger of the Earthlings

(M) 16. The Martian government is very similar to that of the United States. You Earthlings want to be sure that you will be treated equally and fairly by the police and the courts. The best way to do this would be to:

1) riot every time an Earthling is mistreated by the police or courts
2) make sure all Earthlings are educated to know what their rights are
3) get the right to vote and vote for officials who will make sure Earthlings are treated fairly
4) get the right to have responsible and well paid jobs
5) move into communities where only Earthlings live

(M) 17. John moved from Minneapolis, Minnesota, to Birmingham, Alabama three years ago. John's best friends, Bill and Nick, have lived in Birmingham all of their lives. All three boys are going to attend a racially integrated school for the first time this fall. John's parents tell him that he should be helpful and friendly to the few Negro students who will be in his class. However, John knows that Bill and Nick do not like Negroes and that they will never be friendly to the new students. What is probably the best prediction about how John will act toward the Negro students?

1) he will ignore them because he does not want to anger his friends
2) he will be friendly toward them, even though it may mean that Nick and Bill will no longer be his friends
3) he will try to go to a new school where he can avoid the whole problem and meet new friends
4) he will tell his parents that he agrees with his friends and cannot be friendly to Negroes
5) he will try to avoid going to school altogether

(M) 18. In the situation described for question 17, Nick and Bill probably learned their attitudes toward Negroes from:

1) their parents
2) their friends
3) their experience with Negroes
4) watching how adults behave toward Negroes
5) all of the above

(S) 19. Joe Smith and Nick Krushenski are growing up in different countries. We can safely predict that:

1) they will learn to enjoy sports
2) they will learn to have different religious beliefs
3) Joe will get a better education
4) their actions will depend in part on how their parents treat them
5) they will learn to speak and think in different languages

(I) 20. Bill Jones is almost always courteous and friendly at school. However, last week he was part of a group of boys who made fun of a crippled boy. Probably the best explanation of Bill's behavior is that he:

1) thinks crippled people are inferior
2) learned to behave this way at home
3) was influenced by the other boys
4) has an instinctive reaction against crippled people
5) has never had a friend who was crippled

(I) 21. A school band is not an example of:

1) an institution
2) a cluster of roles
3) a hierarchy of authority
4) a group of equal individuals
5) a society

(I) 22. Mary Smith was sent to the assistant principal's office because she knew who set off the fire alarm. She tearfully refused to tell on the person. The best explanation of her refusal to tell on the responsible person is that:

1) she was afraid that she would be punished by the school
2) she was afraid of what the students might think and do if she told
3) she didn't like the assistant principal
4) she was afraid of what her parents might say if she told
5) she was just naturally an uncooperative person

(I) 23. We behave the way we do in school because:

1) of the rules that are made by the teachers and principal
2) we will get in trouble if we don't behave as we do
3) of the influence of our friends and other students
4) our parents expect us to behave as we do
5) all of the above

(M) 24. If you know that a person is prejucided against Orientals, your best prediction would be that he will:

1) almost always discriminate against Orientals
2) not allow his children to go to schools Orientals attend
3) dislike Orientals when he has to associate with them
4) not live in a city where a high percentage of the population is Oriental
5) join an organization that takes violent action against Orientals

(M) 25. Which of the following would be best for preventing the development of prejudice?

1) some Negro teachers in every grade school
2) Negro and white children playing together at public playgrounds
3) pleasant Negro baby sitters for white children
4) encouraging white children to read stories about famous Negroes

(M) 26. If all job discrimination against Negroes were to end immediately we would expect to find that in a year or two:

1) about 10% of all professional people and managers would be Negroes because Negroes are about 10% of the total population
2) there would no longer be any discrimination or prejudice because Negroes and white would get to know one another as they worked together
3) there would be little change in the numbers and percentages of Negroes in important job positions
4) civil rights organizations would become less important because they would have accomplished their major goal

(S) 27. Jack and Jull were brought up the forest by a wolf. Jack and Jill are:

1) as human as any other people
2) wolves because they bark and howl instead of speaking
3) not human because they do not behave like human beings
4) not human because they do not have a complex language
5) not human because they cannot stand upright

(S) 18. In order for Jack and Jill to become more like people they will have to:

1) learn the ideas and beliefs of some human society
2) be sent to a special school to learn how to behave
3) get to know some human children
4) go back and live with their real parents
5) this question doesn't make sense because they can never become like other people

(S) 29. In every society a child must be carefully taught how to behave and how to survive. This is done because:

1) children are born without instincts
2) children's reflexes must be carefully trained
3) children's natural inherited abilities do not take over until they are about five or six
4) mothers have a "maternal instinct" to care for their young children
5) all of the above

(I) 30. Three men bought a grocery store. They decided that one of them should be responsible for ordering groceries, one of them should hire and supervise the other employees, and one of them should be responsible for the bookkeeping. This is an example of:

1) hierarchy of authority
2) division of labor
3) an assembly line
4) resolving conflict
5) all of the above

(S) 31. In order to live, all human beings must have food, water, rest, body covering and shelter, and the young must have protection and training from other human beings. While all humans do have these same "needs", they provide for these needs in very different ways in various parts of the world. These different ways of providing for the same needs are evidence that:

1) some groups of human beings are superior to others
2) human beings are capable of complex learning
3) some people have different instincts than others
4) some groups live in very different geographic environments
5) None of the above

(Read this situation to answer questions 32, 33 and 34)

A white man in Alabama who owns a drug store said: "All niggers are inferior to white men! I have always felt this way, and I won't let any of them sit at my store's lunch counter because they are inferior."

(M) 32. When the man in the paragraph above says: "All niggers are inferior to white men!" he is putting into words:

1) discrimination
2) a prejudice
3) an opinion probably based on his past experience with Negroes
4) all of the above
5) none of the above

(M) 33. When this man decides not allow Negroes at his lunch counter he is:

1) practicing discrimination
2) acting like a Southerner
3) performing prejudice
4) supporting integration
5) none of the above

(M) 34. If a United States federal court orders this man to allow Negroes at his lunch counter, the court is:

1) ending discrimination
2) ending prejudice
3) changing the feelings of the man
4) creating a more friendly situation
5) all of the above

(I) 35. Suppose that you were going to start a bubble gum factory. One of the first things you will do is to set up rules that everybody in the factory will have to follow. Why will these rules be important?

1) so that everyone in the company knows what is expected of him
2) so that all of the people working there will know who they are supposed to take orders from
3) rules are necessary if everybody in the factory is going to get along
4) a good set of rules will help make sure that you produce as much bubble gum as possible
5) all of the above

(S) 36. If a person tells you that he is naturally mean and wicked you can assume that he

1) really is naturally mean and wicked
2) is not telling the truth because no one really believes that he is mean and wicked
3) has known other people who believed that he was mean and wicked
4) really thinks that he's better than everyone else
5) probably is seriously mentally ill

(S) 37. Sam is the best pitcher on his team. He can hit a ball harder than anyone else in the league. Sam is such a good hitter that it is really not important that he is a slow runner. Sam is a good ball player because of his:

1) basic physical inheritance
2) superior reflexes
3) special set of instincts
4) socialization
5) special combination of all of the above

(S) 38. Which of the following situations does not describe a role?

1) teachers discipline students
2) Bill practices football
3) John feels that all people are good
4) Jill changes her baby sister's diaper
5) Chief Black Feather leads war parties

(s) 39. John Brown will learn how to make a living by going to schools and college. Nanook, the Eskimo, will learn how to support his family by observing and working with his father. When Nanook and John grow up, we can say that:

1) Nanook is ignorant, but John is intelligent
2) John is an adult, but Nanook has never learned to be anything but a child
3) John is happy, but Nanook is doomed to a life of unhappiness
4) Nanook has not had an opportunity to become a fully human person
5) none of the above

(S) 40. The Ding-Dings have lived on a small rocky island in the Pacific for centuries. They have always lived in caves, eaten seaweed and sea gull eggs, worn grass skirts, and spoken a very simple language containing only 61 words. They believe that their island is a very special place, bringing good luck to people who live there. American scientists who discovered their island found that the island's rocks were 50% gold ore. An American company agreed to pay the Ding-Dings 50% of the profit for the right to come in and mine the gold ore. Which of the following changes would probably not take place in Ding-Ding society?

1) most of them would add new words to their vocabulary
2) most Ding-Dings would try new foods brought by the miners
3) most of them would probably build new homes or improve their caves
4) most of them would learn to dress in new ways
5) most of them would probably want to move to the United States

(S) 41. The Ding-Dings described in question 40 have lived on this island of rich gold deposits for centuries. Why were they so poor before the Americans discovered them?

1) they were not intelligent enough to know how valuable gold is
2) they preferred the beauty of the gold in its natural setting
3) they had always assumed that gold was just another kind of worthless rock
4) they believed that it would be best to save the gold until they really needed money
5) they were too lazy to mine it themselves

(I) 42. An institution is a way a group of people have for accomplishing something needed in their society. Which of the following is not an institution?

1) a family
2) a crowd
3) the Boy Scouts
4) the Catholic Church
5) a city

(I) 43. Johnny started kindergarten recently. Every day he goes to school, but he runs home whenever he feels like it. The best explanation of Johnny's problem is that he:

1) has not learned what is expected of a student
2) does not like school
3) is probably too young to be in school
4) does not have an alert and understanding teacher
5) does not have firm discipline at home

(M) 44. Some Americans believe that all American citizens, regardless of their race, ought to live in the same neighborhoods, go to the same schools, and share the same public facilities. Other Americans believe that the races should live separately and come into contact with one another as seldom as possible. This difference in beliefs shows us that:

1) different cultures exist within our nation
2) some people do not know that all individuals are basically alike
3) many Americans do not believe in individual freedom of choice
4) each race does have its own special capabilities and talents
5) Americans really don't know what they believe

(S) 45. Judy blinked her eyes and ducked when the bat flew right at her. Blinking and ducking are:

1) instincts
2) reflexes
3) learned reactions
4) unusual reactions
5) none of the above

(S) 46. One year old Jack cries whenever he is hungry. Crying in this situation is:

1) an instinct
2) a reflex action
3) a learned reaction
4) an unusual reaction
5) none of the above

(S) 47. The members of a certain Indian tribe will not enter a cave because they believe that caves are the homes of evil spirits. This belief in cave-dwelling evil spirits is:

1) a fact to these Indians
2) a myth that no human being could really believe
3) probably a fairy tale designed to keep children out of caves
4) a harmless, but silly belief
5) evidence that this tribe is very uncivilized

(Read this situation to answer questions 48, 49 and 50)

John is a white man who has worked on a construction crew with Jim, a Negro, for the past year. John says, "Before I met Jim, I never knew Negroes. I had some funny ideas about them. I had always heard that they were kind of lazy. I always thought of them as very different from me. After I worked with Jim for six months, I got to know him pretty well. He sure isn't lazy! He has a lot of problems just like I do. Jim sure is a lot like me!"

(M) 48. Before John got to know Jim, his ideas about Negroes were based on:

1) hate
2) lack of information
3) discrimination
4) knowledge about Negroes
5) all of the above

(M) 49. It was possible for John to get to know Jim because:

1) the construction crew was integrated
2) false ideas had been destroyed ahead of time
3) there is probably no prejudice in their town
4) Jim was a good man
5) John is probably a fair and honest person

(M) 50. What did John learn from working with Jim?

1) all Negroes are worthless
2) Negroes are good people
3) Jim is a good man
4) all Negroes are like Jim
5) Negroes can be good people if they have a chance to work with whites

(S) 51. The Boo-Boos are a tribe who believe that every male must kill a member of the Zing-Zing tribe before he can be considered a man, get married, and have children. Women raise all of the food in this tribe, but they cannot do any work until they have one child. Suppose that the Zing-Zings all die of smallpox. If the Boo-Boos do not change their beliefs, what will probably happen to their tribe in 50 years.

1) there will be no Boo-Boo children in the tribe
2) the Boo-Boos will be starving to death
3) even though there will still be a few adult males in the tribe, there will be no young "men" in the tribe
4) the only women who are mothers will be quite old
5) all of the above

(S) 52. If the Boo-Boos do eventually die out because of the situation described in question 51, we would say that they have become extinct because of their:

1) natural environment
2) refusal to become civilized
3) stupidity
4) culture
5) instincts

(S) 53. Some people seem to be more intelligent than others. The reason for this is that some individuals have:

1) had good schooling
2) inherited the potential for superior intelligence
3) had experiences during their lives that have helped develop their intelligence
4) have been encouraged to take an interest in learning and the use of their minds
5) all of the above

(S) 54. Jim Glutz taught his younger brother to ride a bicycle before he left for school. Then he hurried off to his first hour social studies class. After school he practiced with his football team. Before supper he carried out the garbage. These activities in Jim's daily life show us that Jim:

1) has a number of different roles
2) is expected to do many different things every day
3) is a member of a complex society
4) all of the above
5) none of the above

(S) 55. When we say that some people belong to the Negro race and some people belong to the white race this is similar to the statement that:

1) some people have large ears and some people have small ears
2) some people have better personalities than others
3) some people can sing and dance better than other people
4) some people are better at physical labor than others
5) some people are more intelligent than others

(I) 56. Suppose that your job is putting door handles on new cars at the Ford plant. You discover a new and faster way of doing your work. If you want to help the company speed up the production of cars, whom will you tell about your new idea?

1) the president of Ford Motor Company
2) your foreman
3) another worker who puts door handles on new Fords
4) your best friend
5) no one

(M) 57. John said, "Bill is a Negro. Bill enjoys getting into trouble because that's the way Negroes are." This is an example of:

1) an instinctive reaction
2) a learned response to Negroes
3) what usually happens when Negroes and whites go to school together
4) one of the most important values in American culture
5) none of the above

(S) 58. Suppose that you discover the New-News, a society that no one has ever known about before. As you observe these people, you discover that they believe that women are more intelligent than men. Women make all of the decisions, receive the best food, and live in the best buildings. Women visit their husbands and fathers only once a week and then they treat them as if they were children. You could predict that in this society:

1) girls learn at a very young age that women are superior to men
2) that these beliefs about male inferiority developed over many years and have existed a long time
3) probably a large proportion of the men believe that they are inferior to women
4) if a new government forced women to treat men as their equals they probably would not believe that men were their equals
5) all of the above

MAN AND CULTURE - TEST II

To the student: We are interested in your opinions and reactions to the statements on this test. The test will not be used by your teacher in giving you a grade. All papers will be turned over to the Project Social Studies office. Your teacher and your classmates will never know how you react to these statements. So please react to them as honestly as you can. You will need a soft lead pencil. If you do not have a number 2 or number 3 lead pencil, your teacher will provide you with one.

Answer Sheet: On your desk is an answer sheet. Fill in the blanks at the side beginning with school. Fill in your teacher's last name in space for "INSTRUCTOR". Fill in your class hour in the space marked "GRADE". In the space marked "TEST," put a number 2. Turn to the blanks for your name. Read the instructions and print your name, last name first. Fill in the grid below your name. Now look at the answer spaces. Remember that the numbers do not go all the way from the top to the bottom of the page. They go from 1 to 5 and then up to the second column for 6 through 10, and so on.

Directions: Please read each of the statements carefully. Find the space on the answer sheet that has the same number as the statement to which you are reacting. Carefully blacken in all of the space for the number of the answer you decide upon. Your teacher will put this table on the chalkboard for you to use in marking the answer of your choice:

1	2	3	4	5
"Strongly Agree"	"Agree"	"Don't Know Not Sure"	"Disagree	"Strongly Disagree"
☐	☐	☐	☐	☐

If you "strongly agree" with what the statement says, mark space number 1--"strongly agree". If you agree with the statement, but are not convinced that you would agree with the statement all of the time, mark space number 2--"agree." If you completely disagree with what the statement says, mark space number 5--"strongly disagree." If you would disagree with the statement in most situations, mark space number 4--"disagree." If you are unsure of your reaction to a statement, or if the statement is unclear to you, mark space number 3--"don't know--not sure." Follow along very carefully as you go over the following examples in class.

EXAMPLE A: Social studies class is enjoyable. 1 ☐ 2 ■ 3 ☐ 4 ☐ 5 ☐

The person who reacted to this statement agreed with it, out he did not strongly agree with it. Perhaps he said to himself, "Yes, I usually enjoy social studies, but once in a while it is not very interesting and I don't enjoy it then."

EXAMPLE B: Dogs make good pets. 1¦ ¦ 2| | 3| |4 | |5| |

NOTE: Work quickly. Answer all questions. If you should decide to change an answer, be sure that you completely erase your first choice.

(The letters in parentheses before each item denote whether that item was included in the beliefs subtest (B), or the content subtest (C).)

Be sure to follow carefully the instructions your teacher has given you.

(B) 1. Most people who end up in prison are just naturally bad people.

(C) 2. Even if an Indian boy were brought up in the city he would probably be a better army scout than a white boy.

(C) 3. Even if I had been lost in the woods as a baby and I had never seen another human being,I would still act a lot like I do now.

(B) 4. White people are naturally superior to people of other races.

(B) 5. I usually act much the same no matter what situation I'm in.

(C) 6. Some people in our school, like the principal and the assistant people, really have very little to do with what I learn.

(C) 7. When a school is run efficiently, the students are happier.

(C) 8. I probably could learn a lot more in school if there weren't so many rules to worry about.

(C) 9. Every organization must have leaders if it is to run well.

(B) 10. We would probably get along better if we didn't have to associate with other people.

(C) 11. If a white man's skin turned black, he would soon learn to behave like a Negro.

(C) 12. If all students studied as much as the best students, all students would get "A" grades.

(B) 13. Most kids in the world would like to live very much as I do.

(C) 14. Some African girls wear rings in their noses for the same reason that American girls wear make-up.

(B) 15. Only uneducated people would allow themselves to be ruled by a dictator.

(C) 16. Civil rights laws can end prejudice.

(B) 17. Voting in school board elections is foolish because nothing really changes no matter who is elected.

(B) 18. I'm afraid that the colored races will take over the world if we don't do something soon.

(B) 19. The only reason that primitive tribes live as they do is that they don't know any better.

(C) 20. Segregation of Negroes harms the whites as well as the Negroes.

(C) 21. Probably George Washington was born naturally honest.

(B) 22. Some people are born to lose.

(C) 23. Artists and musicians inherit their talents from their parents.

(C) 24. People of different races naturally act very differently.

(C) 25. If the water was of better quality in France, the French would probably drink less wine.

(C) 26. Brothers and sisters often act alike because they have the same blood.

(B) 27. Most Jews are born with the ability to make more money than other people.

(B) 28. People naturally want to live with their own kind.

(C) 29. Rules are good because they tell us how we are expected to act.

(C) 30. The Eskimos have few schools. This probably means that most Eskimos have no education.

(C) 31. Working in the hot sun doesn't bother Negroes as much as it does white men.

(C) 32. Everyone is born with a personality that is difficult to change.

(C) 33. If there were no police or judges or jails people would do whatever they wanted to do.

(C) 34. Most people don't have to learn how to behave, they naturally do what is right.

(B) 35. Life would be better if there were no laws.

(C) 36. Most Negroes have more talent with Jazz music than people of other races.

(C) 37. Segregation probably cannot end until most whites accept people of other races as equals.

(C) 38. We learn how to live from many different people.

(C) 39. An orphanage is really like a family.

(C) 40. We probably like people that we know better than we like people that we don't know.

(B) 41. Everyone really wants to be rich.

(C) 42. Irishmen were discriminated against when they first came to America because they weren't as smart as they are now.

(C) 43. Most kids will grow up to be like their parents.

(B) 44. If I had grown up in Abraham Lincoln's time I would really be very much the same person that I am today.

(B) 45. People I like agree with me most of the time, while people I dislike do not.

(C) 46. I can't help behaving as I do because my behavior was determined before I was born.

(C) 47. When I am with a group of people, I usually do what the group wants to do.

(B) 48. The civil rights movement is probably led by communists because Negroes are not good leaders.

(C) 49. Segregated schools probably help to cause many whites to believe that they are superior to Negroes.

(C) 50. Human children learn to take care of themselves about as soon as most young animals.

(C) 51. There probably would be no human beings today if the family had not developed.

(C) 52. If my grandparents had come from Sweden, it would be easy for me to learn the Swedish language.

(C) 53. If Americans took over the Chinese government, most Chinese would soon act like white people.

(C) 54. Race riots are never justified.

(C) 55. You can have lots of fun at football games because few people know who you are.

(C) 56. I learned to behave as I do from my family and my friends.

(C) 57. Each of the people I know is different from all other people in the world.

(B) 58. We are educated when we graduate from high school.

(C) 59. Probably the most important things that we learn are not learned in school.

(B) 60. A woman's place is in the home.

(B) 61. Children should be taught to obey their parents at all times.

(C) 62. If all kids were brought up in the same way, they would probably behave exactly alike.

(C) 63. If I had different friends I would probably be a very different person.

TEST BOOKLET

The tests you will take today are being used for experimental purposes. They will not affect your grade in any way. By doing your best you will help to discover what seventh graders know about the ideas in the test. You will need a soft lead pencil for each of the tests. If you do not have a number 2 or number 3 lead pencil, the test administrator will provide you with one.

TEST A

To the student: On your desk is a set of cards. Do you find a row of 2's (2222...) at the top of the first card? This is a "2" card. Any place on the "2" card please print: 1) your name, 2) your teacher's last name and, 3) the name of your school.

Look again at the row of 2's. You will find words where the 2's are on the other cards. These cards are made by a computer. The computer sometimes makes mistakes. For example, you may find a card that says "MATU8ITY." What do you think this card should say? If you find any cards like this in your set while you are taking the test, raise your hand and the test administrator will help you figure them out.

While you are taking the test, the test administrator will put a second set of cards on your desk. This second set of cards will be used later so do not worry about it while you are working on the first test.

Directions: On each card after the "2" card you will find a word. You are to write next to the word the first word that it makes you think of. It makes no difference what word you write so long as the word on the card makes you think of it. There are no right or wrong answers. The purpose of the test is to see how quickly words will come to your mind.

For example, suppose that COAT is the word you see. Your job is to write down the first word that COAT makes you think of. COAT might make you think of HAT or MAN or WEAR or BIG or WARM or you might think of some other word. Whatever the first is that you think of write it down next to COAT.

You are to do the same thing for each word on each of the cards. Be sure to write the word clearly but do not worry if you are not sure how to spell the word. Spell it as best you can.

This is a test of speed. When you begin, work straight through the packet of cards. When you finish a card, go right on to the next one. Write only one word on each card. Do not skip any cards. Be sure to write clearly. You should be able to finish in 5 minutes. Are there any questions?

TEST B

To the student: Turn to the second set of cards. On the "2" card, once again print: 1) your full name, 2) your teacher's last name, and 3) the name of your school.

This test is to see how easy you think it would be for you to tell someone else the meaning of some words. For example, telling someone what a coat is would be easy; but it would be difficult to explain Halloween to someone who had never experienced it.

Directions: On each of the following cards you will find a word. You are to put down next to the word on each card a number from 1 to 7. If you think it would be extremely easy for you to tell someone else what the word on a card means, put down the number 1 next to that word.

If, on the other hand, you feel it would be extremely difficult for you to tell someone else what that word means, put down the number 7 next to the word. You may use numbers between 1 and 7 when your judgment is somewhere between extremely easy and extremely difficult.

When you have completed the test, place both sets of cards with the name card ("2" card) up. Put the first set on top of the second set on your desk, and wait for the rest of the class to finish.

Work very quickly. Do not ponder your words: The test administrator will put this on the chalkboard so you will remember:

1 = very easy   7 = very hard

APPENDIX B

Response Distributions and ^{2} Values for Items on the Values Test

Key: Items on this test are presented in Appendix A. The analysis is explained in Section III of this report. The letters IA in this table stand for the Initial Analysis, CV for the cross-validation. Double asterisks (**) denote results significant at the .01 level, single *, at the .05 level.

Item			Response Categories				
#1		1	2	3	4	5	χ^2 Value
IA	E1 Pre	9	45	30	102	23	26.8508**
	E2 Post	2	29	27	89	62	
CV	E2 Pre	12	49	28	102	22	22.3748**
	E1 Post	8	32	26	88	59	
IA	C1 Pre	3	34	19	31	12	10.4104**
	C2 Post	5	15	20	43	16	
CV	C2 Pre	4	23	18	57	13	3.8605
	C1 Post	2	16	17	59	21	
#2							
IA	E1 Pre	9	41	65	72	22	30.1219**
	E2 Post	7	23	37	84	58	
CV	E2 Pre	10	41	70	78	22	27.1998**
	E1 Post	11	27	56	67	52	
IA	C1 Pre	2	18	27	39	13	1.5823
	C2 Post	1	17	29	34	18	
CV	C2 Pre	6	26	30	35	17	3.0753
	C1 Post	3	19	31	40	22	
#3							
IA	E1 Pre	3	25	46	86	49	111.6798**
	E2 Post	5	5	12	33	154	
CV	E2 Pre	4	28	40	75	66	57.2316**
	E1 Post	4	12	13	42	142	
IA	C1 Pre	2	10	23	37	27	7.7911
	C2 Post	2	4	23	27	43	
CV	C2 Pre	2	13	22	48	30	9.7234*
	C1 Post	4	5	16	42	48	

Item			Response Categories					
#4			1	2	3	4	5	χ^2 Value
IA	E1 Pre		5	18	35	44	107	10.9699*
	E2 Post		4	9	18	48	130	
CV	E2 Pre		7	14	53	47	92	18.5270**
	E1 Post		5	8	24	49	127	
IA	C1 Pre		0	18	15	32	34	10.4713*
	C2 Post		1	6	15	27	50	
CV	C2 Pre		4	7	26	30	48	5.2447
	C1 Post		1	11	18	27	58	
#5								
IA	E1 Pre		4	28	35	109	33	28.9475**
	E2 Post		2	17	31	78	81	
CV	E2 Pre		7	44	28	98	36	28.6813**
	E1 Post		5	17	28	85	78	
IA	C1 Pre		2	15	17	50	15	7.0414
	C2 Post		2	6	21	45	25	
CV	C2 Pre		3	15	11	52	34	2.0263
	C1 Post		1	11	13	57	33	
#6								
IA	E1 Pre		5	32	46	79	47	6.8651
	E2 Post		15	26	54	71	43	
CV	E2 Pre		4	39	60	75	35	7.8877
	E1 Post		13	41	45	71	43	
IA	C1 Pre		8	20	22	31	18	2.4500
	C2 Post		7	14	30	29	19	
CV	C2 Pre		8	24	32	27	24	2.7815
	C1 Post		8	29	24	34	20	
#7								
IA	E1 Pre		4	13	41	105	46	6.0164
	E2 Post		11	20	43	98	37	
CV	E2 Pre		2	14	37	105	55	9.5266*
	E1 Post		8	23	44	81	57	
IA	C1 Pre		4	10	18	46	21	7.7272
	C2 Post		10	12	28	34	15	
CV	C2 Pre		2	15	22	42	34	6.1781
	C1 Post		6	13	33	39	24	

Item			Response Categories 1	2	3	4	5	χ^2 Value
#8								
IA	E1	Pre	5	17	24	102	61	4.6498
	E2	Post	6	11	16	120	56	
CV	E2	Pre	2	24	17	116	54	8.1983
	E1	Post	8	12	20	113	60	
IA	C1	Pre	5	12	15	47	20	9.4810
	C2	Post	0	7	9	55	27	
CV	C2	Pre	12	12	18	49	24	7.8832
	C1	Post	8	4	15	51	37	
#9								
IA	E1	Pre	7	13	11	91	87	1.1989
	E2	Post	8	9	14	89	89	
CV	E2	Pre	5	6	10	88	104	6.0286
	E1	Post	9	10	18	72	104	
IA	C1	Pre	1	4	9	33	52	3.1159
	C2	Post	4	5	9	38	43	
CV	C2	Pre	3	6	9	44	53	1.5818
	C1	Post	2	10	7	46	50	
#10								
IA	E1	Pre	3	10	21	72	103	12.5868*
	E2	Post	3	3	16	51	136	
CV	E2	Pre	8	3	22	74	106	11.5098*
	E1	Post	3	8	20	51	131	
IA	C1	Pre	3	4	11	26	55	3.2908
	C2	Post	1	3	17	20	58	
CV	C2	Pre	1	9	8	40	57	6.3499
	C1	Post	4	3	11	33	64	
#11								
IA	E1	Pre	53	60	65	24	7	3.4767
	E2	Post	68	48	61	26	6	
CV	E2	Pre	50	56	67	28	12	2.0460
	E1	Post	59	55	56	32	11	
IA	C1	Pre	26	32	23	12	6	4.6961
	C2	Post	33	22	31	9	4	
CV	C2	Pre	32	33	34	11	5	1.0425
	C1	Post	34	29	36	13	3	

Item		Response Categories					χ^2 Value
#12		1	2	3	4	5	
IA	E1 Pre	16	34	28	92	39	17.9714**
	E2 Post	12	13	29	87	68	
CV	E2 Pre	15	33	29	98	38	10.1182*
	E1 Post	9	25	21	95	63	
IA	C1 Pre	9	13	11	50	16	10.6291*
	C2 Post	2	5	11	55	26	
CV	C2 Pre	9	20	11	57	18	11.3042*
	C1 Post	5	14	18	43	35	
#13							
IA	E1 Pre	27	65	72	31	14	15.3510**
	E2 Post	18	47	69	39	36	
CV	E2 Pre	45	51	68	33	16	9.1425
	E1 Post	25	46	75	44	23	
IA	C1 Pre	14	34	29	14	8	8.9440
	C2 Post	7	21	41	17	13	
CV	C2 Pre	16	37	38	17	7	3.5478
	C1 Post	14	32	33	23	13	
#14							
IA	E1 Pre	4	11	75	89	30	21.2125**
	E2 Post	8	12	39	93	57	
CV	E2 Pre	4	13	78	86	32	21.5867**
	E1 Post	8	9	45	87	64	
IA	C1 Pre	3	6	37	45	18	4.9968
	C2 Post	8	5	21	39	26	
CV	C2 Pre	2	7	35	48	23	2.8702
	C1 Post	4	8	28	44	31	
#15							
IA	E1 Pre	9	37	71	72	20	13.3307**
	E2 Post	5	21	58	67	48	
CV	E2 Pre	9	34	68	77	25	10.8563*
	E1 Post	8	20	69	69	47	
IA	C1 Pre	2	8	33	42	14	1.9453
	C2 Post	5	9	36	37	12	
CV	C2 Pre	6	22	32	40	15	2.2638
	C1 Post	5	15	35	40	20	

Item			Response Categories					
#16			1	2	3	4	5	χ^2 Value
IA	E1	Pre	8	23	131	39	8	14.5742**
	E2	Post	6	28	106	41	28	
CV	E2	Pre	4	35	141	25	8	36.7758**
	E1	Post	12	27	93	50	31	
IA	C1	Pre	3	20	55	27	4	3.0678
	C2	Post	1	14	58	19	7	
CV	C2	Pre	3	18	72	19	3	7.1994
	C1	Post	2	12	67	22	12	
#17								
IA	E1	Pre	4	16	29	102	58	3.9746
	E2	Post	7	9	26	98	69	
CV	E2	Pre	4	11	31	108	59	9.9065*
	E1	Post	12	23	31	90	57	
IA	C1	Pre	3	11	13	48	24	3.5853
	C2	Post	6	10	18	37	28	
CV	C2	Pre	9	11	12	59	24	2.0233
	C1	Post	10	11	14	49	31	
#18								
IA	E1	Pre	3	18	53	75	60	2.7456
	E2	Post	6	14	57	65	67	
CV	E2	Pre	11	17	48	83	54	3.1043
	E1	Post	5	16	54	78	60	
IA	C1	Pre	5	13	26	32	23	3.0893
	C2	Post	2	9	31	29	28	
CV	C2	Pre	3	14	30	42	26	3.5359
	C1	Post	4	9	28	37	37	
#19								
IA	E1	Pre	34	95	35	36	9	28.6033**
	E2	Post	14	74	45	40	36	
CV	E2	Pre	39	85	31	42	16	11.3635*
	E1	Post	23	75	32	50	33	
IA	C1	Pre	11	45	11	22	10	4.6631
	C2	Post	11	33	20	23	12	
CV	C2	Pre	17	48	25	19	6	3.1475
	C1	Post	19	42	19	25	10	

Item			Response Categories					
#20			1	2	3	4	5	χ^2 Value
IA	E1	Pre	8	20	92	68	21	4.8287
	E2	Post	16	26	91	55	21	
CV	E2	Pre	8	19	102	68	16	1.8207
	E1	Post	10	20	97	63	23	
IA	C1	Pre	5	13	43	30	8	7.8966
	C2	Post	10	13	53	21	2	
CV	C2	Pre	4	18	48	35	10	3.7718
	C1	Post	7	15	59	26	8	
#21								
IA	E1	Pre	8	35	56	86	24	7.0306
	E2	Post	1	8	41	64	95	
CV	E2	Pre	17	34	55	77	30	4.9393
	E1	Post	7	13	28	79	86	
IA	C1	Pre	5	21	32	29	12	8.5458
	C2	Post	3	14	25	30	27	
CV	C2	Pre	3	18	38	47	9	1.5448
	C1	Post	2	14	21	50	28	
#22								
IA	E1	Pre	4	32	30	93	50	30.4338**
	E2	Post	3	19	23	60	104	
CV	E2	Pre	12	32	35	84	50	14.0832**
	E1	Post	10	19	26	74	84	
IA	C1	Pre	3	17	22	32	25	2.9983
	C2	Post	5	17	14	39	24	
CV	C2	Pre	5	18	20	42	30	.2850
	C1	Post	6	18	21	43	27	
#23								
IA	E1	Pre	5	44	50	80	30	6.6590
	E2	Post	5	43	40	71	50	
CV	E2	Pre	10	43	39	101	20	25.8288**
	E1	Post	7	36	32	77	61	
IA	C1	Pre	2	21	25	40	11	6.3573
	C2	Post	5	14	28	32	20	
CV	C2	Pre	4	22	25	49	15	.5581
	C1	Post	3	25	22	49	16	

Item #24		Response Categories 1	 2	 3	 4	 5	χ^2Value
IA	E1 Pre	11	80	39	62	17	4.1278
	E2 Post	16	72	33	61	27	
CV	E2 Pre	14	75	41	66	17	6.0718
	E1 Post	20	62	38	63	20	
IA	C1 Pre	12	36	18	27	6	1.0123
	C2 Post	10	38	18	24	9	
CV	C2 Pre	9	53	13	27	13	15.7589**
	C1 Post	18	28	27	27	15	
#25							
IA	E1 Pre	18	52	79	44	16	4.9610
	E2 Post	12	42	93	39	23	
CV	E2 Pre	14	55	71	56	17	4.3231
	E1 Post	16	48	77	45	27	
IA	C1 Pre	6	20	40	26	7	6.0837
	C2 Post	2	20	32	30	15	
CV	C2 Post	9	32	33	27	14	3.5442
	C1 Pre	15	22	33	30	15	
#26							
IA	E1 Pre	2	40	53	88	26	41.5397**
	E2 Post	0	14	39	80	76	
CV	E2 Pre	7	52	46	86	22	22.9049**
	E1 Post	6	31	36	82	58	
IA	C1 Pre	2	22	26	42	7	9.2974
	C2 Post	1	13	28	37	20	
CV	C2 Pre	2	27	27	45	14	8.5295
	C1 Post	5	23	14	49	24	
#27							
IA	E1 Pre	2	8	51	97	51	24.8006**
	E2 Post	2	10	33	66	98	
CV	E2 Pre	4	9	49	86	62	5.2554
	E1 Post	3	12	41	75	82	
IA	C1 Pre	1	2	21	48	27	2.2978
	C2 Post	2	4	23	39	31	
CV	C2 Pre	0	3	27	54	31	9.0439
	C1 Post	4	6	30	37	38	

Item #28		Response Categories 1	2	3	4	5	χ^2 Value
IA	E1 Pre	37	112	28	27	5	12.1459*
	E2 Post	38	86	46	25	14	
CV	E2 Pre	43	103	32	30	4	3.6940
	E1 Post	39	89	44	34	7	
IA	C1 Pre	19	59	10	9	2	2.5368
	C2 Post	24	54	13	5	3	
CV	C2 Pre	35	58	10	12	0	7.5149
	C1 Post	30	56	14	9	6	
#29							
IA	E1 Pre	5	10	16	122	56	6.0770
	E2 Post	5	18	24	101	61	
CV	E2 Pre	7	12	21	113	60	7.5539
	E1 Post	2	24	17	116	54	
IA	C1 Pre	0	7	9	55	27	9.4810
	C2 Post	5	12	15	47	20	
CV	C2 Pre	9	4	16	50	36	6.8589
	C1 Post	12	12	17	50	24	
#30							
IA	E1 Pre	16	64	49	68	12	65.2880**
	E2 Post	8	38	20	70	73	
CV	E2 Pre	18	54	43	48	15	38.6080**
	E1 Post	9	31	28	86	59	
IA	C1 Pre	5	26	19	42	7	6.7753
	C2 Post	4	18	24	36	17	
CV	C2 Pre	15	38	24	29	9	17.1200**
	C1 Post	3	30	22	35	25	
#31							
IA	E1 Pre	17	49	66	53	24	3.8320
	E2 Post	16	54	67	39	33	
CV	E2 Pre	15	38	70	60	30	8.7402
	E1 Post	23	55	56	45	34	
IA	C1 Pre	5	20	34	25	15	8.9464
	C2 Post	15	28	24	20	12	
CV	C2 Pre	7	19	36	29	24	10.5252*
	C1 Post	12	33	20	23	27	

Item		Response Categories					
#32		1	2	3	4	5	χ^2 Value
IA	E1 Pre	34	101	31	33	10	25.3824**
	E2 Post	24	64	38	53	30	
CV	E2 Pre	38	95	38	34	8	26.5012**
	E1 Post	19	76	40	43	35	
IA	C1 Pre	20	40	18	19	2	8.3372
	C2 Post	11	39	32	13	4	
CV	C2 Pre	29	43	19	22	2	6.7659
	C2 Post	19	46	24	18	8	
#33							
IA	E1 Pre	95	74	24	14	2	7.3571
	E2 Post	71	87	26	19	6	
CV	E2 Pre	99	78	17	18	1	15.8985**
	E1 Post	76	81	25	17	14	
IA	C1 Pre	49	34	12	3	1	1.8949
	C2 Post	43	37	11	6	2	
CV	C2 Pre	67	35	5	5	3	6.5892
	C1 Post	52	37	11	11	4	
#34							
IA	E1 Pre	4	36	45	79	45	27.0943**
	E2 Post	5	14	23	87	80	
CV	E2 Pre	8	35	41	92	37	43.7342**
	E1 Post	11	22	21	61	98	
IA	C1 Pre	3	25	20	36	15	2.5779
	C2 Post	3	17	20	38	21	
CV	C2 Pre	0	26	17	51	21	9.2086
	C1 Post	4	21	19	38	33	
#35							
IA	E1 Pre	5	3	6	41	154	6.4382
	E2 Post	8	6	15	42	138	
CV	E2 Pre	4	4	5	35	165	10.3557*
	E1 Post	6	5	17	45	140	
IA	C1 Pre	2	0	7	17	73	3.0190
	C2 Post	4	2	8	18	67	
CV	C2 Pre	3	2	2	18	90	7.4467
	C1 Post	5	2	11	18	79	

Item			Response Categories				
#36		1	2	3	4	5	χ^2 Value
IA	E1 Pre	26	65	63	44	11	19.9232**
	E2 Post	12	53	60	48	36	
CV	E2 Pre	17	65	66	44	21	4.3611
	E1 Post	19	62	50	55	27	
IA	C1 Pre	10	34	25	24	6	4.3815
	C2 Post	15	30	30	15	9	
CV	C2 Pre	17	32	27	28	11	2.1967
	C1 Post	14	28	25	38	10	
#37							
IA	E1 Pre	58	71	68	9	3	2.4886
	E2 Post	64	79	55	7	4	
CV	E2 Pre	58	69	80	3	3	19.0210**
	E1 Post	67	79	46	13	8	
IA	C1 Pre	25	33	32	7	2	1.9129
	C2 Post	21	30	40	5	3	
CV	C2 Pre	39	31	39	3	3	2.1159
	C1 Post	37	36	32	5	5	
#38							
IA	E1 Pre	4	6	34	134	31	28.7088**
	E2 Post	1	12	25	97	74	
CV	E2 Pre	5	4	19	143	42	7.7251
	E1 Post	6	6	22	116	63	
IA	C1 Pre	2	4	10	57	26	6.4657
	C2 Post	5	8	16	54	16	
CV	C2 Pre	0	1	14	79	21	8.0330
	C1 Post	1	9	12	76	17	
#39							
IA	E1 Pre	14	77	79	30	9	20.3803**
	E2 Post	11	52	71	44	31	
CV	E2 Pre	7	88	66	42	10	11.5996*
	E1 Post	13	69	60	45	26	
IA	C1 Pre	10	29	29	25	6	3.0152
	C2 Post	10	36	29	16	8	
CV	C2 Pre	11	50	31	16	7	10.1425*
	C1 Post	11	28	43	21	12	

Item			Response Categories 1	2	3	4	5	χ^2 Value
#40	IA	E1 Pre	2	16	32	122	37	3.7452
		E2 Post	5	23	33	107	41	
	CV	E2 Pre	7	17	24	121	44	4.0011
		E1 Post	11	22	33	107	40	
	IA	C1 Pre	0	6	14	60	19	11.4864**
		C2 Post	10	8	15	50	16	
	CV	C2 Pre	4	5	5	74	27	6.8955
		C1 Post	4	12	11	59	29	
#41	IA	E1 Pre	35	54	29	78	13	17.8076**
		E2 Post	20	52	60	60	17	
	CV	E2 Pre	39	57	27	77	13	9.4314
		E1 Post	30	48	43	68	24	
	IA	C1 Pre	19	27	11	38	4	14.6364**
		C2 Post	14	26	24	22	13	
	CV	C2 Pre	24	33	20	29	8	.5610
		C1 Post	24	30	19	34	8	
#42	IA	E1 Pre	0	14	142	43	10	10.2499*
		E2 Post	4	15	125	42	23	
	CV	E2 Pre	4	14	146	31	18	10.1206*
		E1 Post	1	9	127	50	26	
	IA	C1 Pre	1	12	63	17	6	8.3697
		C2 Post	5	3	69	16	6	
	CV	C2 Pre	3	11	64	25	12	5.4894
		C1 Post	5	3	65	27	15	
#43	IA	E1 Pre	6	58	59	72	14	8.5884
		E2 Post	4	75	40	67	23	
	CV	E2 Pre	9	51	56	86	11	1.8940
		E1 Post	15	71	50	52	25	
	IA	C1 Pre	3	25	26	38	7	1.0300
		C2 Post	5	23	23	39	9	
	CV	C2 Pre	2	30	28	47	8	6.3095
		C1 Post	6	38	22	36	13	

Item			Response Categories					
#44			1	2	3	4	5	χ^2 Value
IA	E1	Pre	3	30	47	98	31	30.8343**
	E2	Post	4	18	23	88	76	
CV	E2	Pre	7	33	60	91	22	39.0810**
	E1	Post	6	14	32	94	67	
IA	C1	Pre	2	10	27	47	13	9.8918*
	C2	Post	5	5	20	41	28	
CV	C2	Pre	0	16	29	54	16	13.2316*
	C1	Post	7	14	17	50	27	
#45								
IA	E1	Pre	16	65	56	65	7	4.1430
	E2	Post	27	70	51	55	6	
CV	E2	Pre	18	70	47	68	10	2.5699
	E1	Post	23	69	38	68	15	
IA	C1	Pre	7	27	27	31	7	6.9182
	C2	Post	14	28	27	29	1	
CV	C2	Pre	10	28	27	41	9	12.9602*
	C1	Post	15	50	17	27	6	
#46								
IA	E1	Pre	8	15	53	70	63	28.2168**
	E2	Post	3	7	32	52	115	
CV	E2	Pre	3	16	48	83	63	34.6962**
	E1	Post	7	11	31	45	119	
IA	C1	Pre	2	8	25	36	28	1.2866
	C2	Post	4	9	28	31	27	
CV	C2	Pre	3	9	21	44	38	3.9754
	C1	Post	6	5	18	38	48	
#47								
IA	E1	Pre	14	27	27	118	23	3.8312
	E2	Post	7	28	34	122	18	
CV	E2	Pre	11	38	29	110	25	3.0067
	E1	Post	10	32	22	115	34	
IA	C1	Pre	1	18	10	60	10	8.9452
	C2	Post	10	14	11	58	6	
CV	C2	Pre	5	22	10	65	13	2.6420
	C1	Post	8	22	16	58	11	

Item			Response Categories					
#48			1	2	3	4	5	χ^2 Value
IA	E1 Pre		5	9	64	60	71	3.7176
	E2 Post		4	7	55	53	90	
CV	E2 Pre		5	8	61	85	54	9.2802
	E1 Post		5	8	63	62	78	
IA	C1 Pre		1	6	33	30	29	7.5719
	C2 Post		6	1	32	34	26	
CV	C2Pre		2	2	50	30	31	4.6869
	C1 Post		2	7	40	37	29	
#49								
IA	E1 Pre		19	24	79	68	19	8.6989
	E2 Post		11	19	63	92	24	
CV	E2 Pre		10	24	96	58	25	8.7691
	E1 Post		8	24	72	85	24	
IA	C1 Pre		3	19	49	24	4	3.4532
	C2 Post		6	12	46	30	5	
CV	C2 Pre		6	11	48	37	13	2.5712
	C1 Post		7	18	42	38	10	
#50								
IA	E1 Pre		5	23	37	93	51	66.9730**
	E2 Post		7	7	15	49	131	
CV	E2 Pre		5	18	43	103	44	60.7868**
	E1 Post		5	17	16	56	119	
IA	C1 Pre		1	15	15	45	23	13.9386**
	C2 Post		4	5	24	31	35	
CV	C2 Pre		2	12	18	59	24	7.2549
	C1 Post		2	11	22	41	39	
#51								
IA	E1 Pre		8	9	81	82	29	15.8936**
	E2 Post		16	19	59	67	48	
CV	E2 Pre		6	14	91	78	24	35.9881**
	E1 Post		15	17	47	71	63	
IA	C1 Pre		1	11	28	40	19	10.9866*
	C2 Post		8	11	38	24	18	
CV	C2 Pre		9	8	42	40	16	1.2078
	C1 Post		7	12	43	39	14	

Item			Response Categories					χ^2 Value
#52			1	2	3	4	5	
IA	E1	Pre	6	47	36	87	33	10.5834*
	E2	Post	4	28	46	80	51	
CV	E2	Pre	8	37	42	93	33	8.7448
	E1	Post	9	30	40	77	57	
IA	C1	Pre	6	17	12	46	18	2.8191
	C2	Post	8	18	14	35	24	
CV	C2	Pre	4	26	16	52	17	2.7793
	C1	Post	5	21	16	47	26	
#53								
IA	E1	Pre	5	50	69	69	16	5.9729
	E2	Post	7	33	74	70	25	
CV	E2	Pre	7	39	74	71	22	.8027
	E1	Post	6	38	69	73	27	
IA	C1	Pre	5	18	36	31	9	2.2526
	C2	Post	6	15	31	32	15	
CV	C2	Pre	2	24	37	36	16	6.9587
	C1	Post	5	12	33	45	20	
#54								
IA	E1	Pre	18	43	114	23	11	11.6406*
	E2	Post	11	28	111	39	20	
CV	E2	Pre	15	51	109	31	7	9.7135*
	E1	Post	18	41	96	37	21	
IA	C1	Pre	3	31	47	15	3	10.2267*
	C2	Post	10	15	53	16	5	
CV	C2	Pre	9	32	51	18	5	10.0632*
	C1	Post	11	15	52	26	11	
#55								
IA	E1	Pre	21	83	57	39	9	1.3156
	E2	Post	27	77	53	43	9	
CV	E2	Pre	17	92	60	38	6	7.8011
	E1	Post	28	68	63	44	10	
IA	C1	Pre	10	47	22	14	5	2.4879
	C2	Post	14	39	21	20	5	
CV	C2	Pre	13	42	26	26	8	4.5853
	C1	Post	23	39	25	18	10	

Item			Response Categories					χ^2 Value
#56			1	2	3	4	5	
IA	E1 Pre		4	18	32	126	29	17.1122**
	E2 Post		4	11	23	108	63	
CV	E2 Pre		3	21	28	132	29	21.6288**
	E1 Post		3	16	16	110	68	
IA	C1 Pre		1	11	66	62	13	10.3557*
	C2 Post		9	13	18	47	12	
CV	C2 Pre		4	9	16	66	20	3.7240
	C1 Post		7	9	8	68	23	
#57								
IA	E1 Pre		9	32	45	85	38	13.2949*
	E2 Post		5	30	32	73	69	
CV	E2 Pre		5	29	51	87	41	7.0136
	E1 Post		8	19	44	82	60	
IA	C1 Pre		1	16	20	33	28	6.1386
	C2 Post		7	12	20	38	22	
CV	C2 Pre		6	20	26	41	22	4.6532
	C1 Post		9	15	19	39	33	
#58								
IA	E1 Pre		10	69	19	67	44	13.3922**
	E2 Post		4	46	17	72	70	
CV	E2 Pre		19	63	22	83	26	18.2569**
	E1 Post		7	50	23	77	56	
IA	C1 Pre		8	22	6	48	14	11.9571*
	C2 Post		9	28	16	27	19	
CV	C2 Pre		5	37	8	45	20	6.6185
	C1 Post		8	24	14	41	28	
#59								
IA	E1 Pre		12	49	51	77	20	9.7987*
	E2 Post		10	30	58	75	36	
CV	E2 Pre		16	46	48	79	14	15.9159**
	E1 Post		11	27	51	89	35	
IA	C1 Pre		3	29	25	30	10	11.4594*
	C2 Post		12	16	24	29	18	
CV	C2 Pre		10	27	27	35	16	5.5137
	C1 Post		15	16	23	38	23	

Item		Response Categories					
#60		1	2	3	4	5	χ^2 Value
IA	E1 Pre	28	56	47	58	20	9.1654
	E2 Post	17	39	56	67	30	
CV	E2 Pre	23	64	37	70	19	13.4053**
	E1 Post	24	48	39	58	44	
IA	C1 Pre	17	31	14	27	9	10.2879*
	C2 Post	23	28	11	15	22	
CV	C2 Pre	21	40	10	28	16	10.9866*
	C1 Post	20	20	18	33	24	
#61							
IA	E1 Pre	83	100	14	10	2	26.1148**
	E2 Post	49	95	30	27	8	
CV	E2 Pre	103	90	10	7	3	46.3397**
	E1 Post	53	88	26	34	12	
IA	C1 Pre	46	42	3	4	3	7.3409
	C2 Post	38	39	8	12	2	
CV	C2 Pre	55	44	10	6	0	15.8980**
	C1 Post	40	42	8	17	8	
#62							
IA	E1 Pre	11	52	44	81	21	6.8364
	E2 Post	9	39	51	74	36	
CV	E2 Pre	10	54	44	89	16	6.5635
	E1 Post	10	46	49	77	31	
IA	C1 Pre	2	31	26	24	15	15.0803**
	C2 Post	6	13	22	43	15	
CV	C2 Pre	14	25	23	43	10	9.2542
	C1 Post	19	13	26	36	21	
#63							
IA	E1 Pre	16	48	75	60	10	17.2810**
	E2 Post	11	27	63	85	23	
CV	E2 Pre	10	61	69	61	12	23.4791**
	E1 Post	18	28	60	80	27	
IA	C1 Pre	2	24	29	36	7	10.0653*
	C2 Post	14	20	29	31	5	
CV	C2 Pre	9	29	28	35	14	5.9273
	C1 Post	15	18	36	29	17	

APPENDIX # 2
AN EVALUATION OF SELECTED ASPECTS OF THE PROJECT SOCIAL STUDIES CURRICULUM

A Starred Credit Paper

Submitted to the Graduate Faculty

University of Minnesota

by

Marlowe Berg

In Partial Fulfillment of the Requirements

For the Degree of

MASTER OF ARTS

December, 1967

TABLE OF CONTENTS

CHAPTER PAGE

I. THE PROBLEM AND DEFINITION OF TERMS USED 328
  Introduction. 328
  The Problem 329
  Definition of Terms Used 330
II. REVIEW OF THE LITERATURE 332
III. METHODOLOGY 337
  Subjects. 337
  Methods Employed 338
  Research Design and Procedures 339
IV. RESEARCH FINDINGS 343
  Analysis Techniques 343
  Results of the Analysis 345
  Conclusions 347
V. EVALUATION OF THE STUDY 350
  Summary 350
  Other Findings 352
BIBLIOGRAPHY. 354
APPENDIX. 357

LIST OF TABLES

TABLE PAGE

1. Responses Noting Similarities and Differences: Frequency of Project and Non-Project Responses, Percentage of Differences, and Z-Scores 345

2. Content Analysis Categories: Frequency of Project and Non-Project Group Responses, Percentage of Differences, and Z-Scores 346

CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

Introduction

In recent years considerable criticism has been leveled at the social studies programs that exist in the American schools. It has been stated that the schools are, "...preparing boys and girls...to live in the nineteenth or early twentieth centuries rather than in the late twentieth and early twenty-first centuries, in which they are destined to function."[1] Similarly, there are charges that the content of the social studies is out of date, bearing little relationship to the world of today. Instruction has been classified as being ineffectual, antiseptic, and largely dependent on a traditional textbook approach.

This kind of criticism has been a direct result of the changes that are occurring in the fields of technology and science. Man's relationships with his fellow man and his shrinking world are being transformed, while the social studies, which is the study of human relationships, has not been keeping pace. In what might be regarded as an emerging world community, it would seem that the traditional practice of viewing one's surroundings in an ever widening pattern would not serve as sufficient preparation for participation in an interlocking society. According to Taba, it should be one of the tasks of the schools to, "...prepare people to live in a vastly expanded world with interdependent heterogeneous cultures."[2]

In response to these and other criticisms, several organizations have undertaken the task of constructing new curriculum designs. Among these has been the University of Minnesota- based Project Social Studies.

Project Social Studies has been devoted to developing a sequential framework of study in the social science disciplines for grades X-12. Like many of the other curriculum projects, this program has aimed at bringing into the social studies field the new knowledges from the social sciences in an effort to up-date the content. The program has also given increased attention to non-western cultures. Using the basic generalizations of the various disciplines, comparative studies have been instituted in an effort to work toward a general understanding of some of the laws that apply to the functioning of human groups. "Education for mutual understanding rests on the assumption that knowledge of each other's ways and lives will create at least an awareness of the many and varied parts, perhaps tolerance for ways that differ from our own, and ideally, empathy for different peoples and cultures."[3]

---

[1] Leonard S. Kenworthy, "Ferment in the Social Studies," Phi Delta Kappan, October, 1962, p. 12.

[2] Hilda Taba, Curriculum Development, (New York: Harcourt, Brace & World, Inc., 1962), p. 75.

Through the cooperative efforts of educators and scientists, materials were developed and field-tested in selected areas. Units oriented toward interdisciplinary generalizations dealing with the Earth, families, and communities, were introduced into the primary grades in 1965. Building upon previous learnings, but with a different focus, units examing communities, regional studies, and American society were piloted in the intermediate grades in 1966.

The Problem

With the primary units in their second year of use, the opportunity to evaluate the effectiveness of the program became possible. The need to evaluate the new projects has been expressed by several educators. Ralph Preston has concluded that, "If the social studies are to emerge sound...from the current ferment, it will be necessary for each new proposition to be scrutinized carefully....Otherwise we may find...instead of having made progress, we have simply experienced another ride on a pendulum."[4]

Malcolm Douglas has stated that good evaluation is always a sound procedure, but since new procedures and materials will be substituted in place of the present practices there is a particular urgency involved.[5]

The general purpose of this investigation was to evaluate Project Social Studies' curriculum building effort. Since a complete curriculum evaluation would have involved large fund allocations, the scope of this paper was limited to providing a pilot study for purposes of determining the feasibility of larger, more comprehensive investigations.

---

[3] Louis Cajoleas, "International Understanding," Teachers College Record, January, 1960, p. 189.

[4] Ralph Preston, "The Social Studies: Nature, Purpose, and Signs of Change," The National Elementary Principal, April, 1963, p. 13.

[5] Malcolm Douglass, Social Studies, (New York: J.B. Lippincott Company, 1967), p. 487.

To keep this study within the boundaries that had been set, but yet to evaluate the effectiveness of the Project, the author chose to focus the study on one major facet of the program. Among the objectives of Project Social Studies has been the goal of assisting children in understanding selected key concepts and generalizations dealing with universal drives, different environmental uses, the dynamic nature of all societies, and the transmission of culturally determined patterns of living. In developing these understandings, the Project has also attempted to strengthen or modify children's attitudes toward others. The problem, then, was to develop a procedure for evaluating primary level (K-3) children's cognitive and affective development in reference to other cultural groups.

Within the framework of this problem, the following questions were raised:

1. Can the effects of social studies offerings on the modification of students' attitudes be measured?

2. Are certain content and teaching strategies conducive to the development of understanding others?

3. Can schools play a significant role in the development of attitudes necessary for more effective international understanding?

4. Can children at the primary level accept and internalize the idea that there are certain universal needs shared by all people?

5. Do children at the primary level understand principles of cultural change?

6. Can children at the primary level become sensitized to the idea of cultural diversity?

7. Are primary level children cognizant of the learning of cultural patterns?

Definition of Terms Used

In outlining the problem and the specific areas to be investigated, certain terms, which need to be defined for the benefit of the reader, were used.

An attitude is defined as consisting of a predisposition to think or act positively or negatively toward something somewhat more specific.[4]

Cognitive development is defined as, "The process whereby an organism becomes aware of or obtains knowledge of an object."[5]

Affection is defined as, "The general reaction toward something as liked or disliked."[6]

---

[4] Gordon Allport, The Nature of Prejudice, (Boston: Beacon Press, 1954), p. 67.

[5] Horace B. English and Ava Champney English, A Comprehensive Dictionary of Psychological and Psychoanalytical Terms, (New York: David McKay & Co., Inc., 1958), p. 92.

[6] Ibid., p. 15.

CHAPTER II

REVIEW OF THE LITERATURE

Before investigating the designated problem areas, it would seem logical to examine the research that is available regarding: (1) the evaluation of children's orientations toward other cultures, (2) programs designed to modify people's attitudes toward other groups, and (3) the evaluation materials constructed by the various, new social studies projects.

In the area of evaluating children's orientations toward other cultures, relatively few studies have been conducted. As Kenworthy stated, "International understanding is basically the development of attitudes, skills, and broad concepts....These aspects of life are difficult to measure, hence precious little has been done in this important, yet complicated, field."[7]

Keach[8] in a recent article on international education, commented that, "Some of the difficulties...lie in our present state of ignorance of evaluative techniques...." He goes on to say, "...an increasing number of people are asking questions about the processes by which children acquire affective orientations...to other nationals."

The most comprehensive study of children's attitudes regarding other nationals appears to be the recent Lambert and Klineberg[9] investigation. This was a large and complex study, involving 3,300 children from 11 parts of the world. Its major purpose was to examine the "stereotyped" thinking regarding others which children exhibit at 6, 10, and 14 years of age. The authors commented that most durable stereotypes appear to be formed and developed during the early periods of life. Once these stereotypes have been established, they tend to distort new perceptions of people and social events.

---

[7] Leonard S. Kenworthy, "Challenges in International Education," Teachers College Record, April, 1959, p. 396.

[8] Everett T. Keach, Jr., "International Education in the Elementary Schools--Some Problems and Prospects," (Unpublished manuscript).

[9] Wallace Lambert and Otto Klineberg, Children's Views of Foreign Peoples, (New York: Appleton-Century-Crofts, 1967.)

Using an open-ended interview technique, the investigation attempted to elicit responses toward other groups. A system of content analysis was used to categorize descriptions. The study was not meant to answer questions about the development of national awareness and prejudiced thinking so much as to provide basic information and research procedures to serve as future guides.

Among the interesting findings of the study was that many of the stereotyped generalizations were not based on objective data collection, but rather on hearsay, rumor and anecdotes. The study also found that, "...national groups of children with a friendly orientation toward foreign peoples are well informed about various aspects of the ways of life, habits, and personalities of these peoples...."[10]

In the area of programs designed to modify people's attitudes toward other groups, there is conflicting evidence. This may be partly due to the difficulty in constructing a device to evaluate this elusive area.

Shaftel[11] has suggested that attitudes, values and feelings are determined by the knowledge we possess. She goes on to say that, "...this cognitive basis for feelings is very influential and that it constitutes a proper and productive focus for... testing."

Bjerstedt[12] conducted a study aimed at overcoming national stereotypes and barriers in international summer villages. Through the use of interviews, observations, and personality tests, the study explored the hypothesis that information can play an important part in the process of establishing national images. He found that there were fewer tendencies toward national preferences toward the end of the camp session. "One American girl said, 'I have changed my ideas about other peoples. I thought I would dislike them. I find them to be different in customs, but all the same, the same kind of people'." Bjerstedt concluded that information can play a decisive role in the formulation of international orientations.

---

[10] Ibid. p. 175.

[11] Fannie Shaftel, "Cultural Understanding in a World Community," Educational Leadership, May, 1962, p. 538.

[12] Ake Bjerstedt, "Informational and Non-Informational Determinants of Nationality Stereotypes," Journal of Social Issues, 18(1), 1962.

Bohlke[13] reported a study of attitude changes in college students as a result of an investigation of India. He found no direct relationship between increased information about a people and a decrease of prejudice and hostile feelings on the part of the students.

An interesting conclusion was provided in a study conducted by Murphy and Levine.[14] Their findings suggest that a person's perceptions and memory of various materials are distorted by his own wishes and motives. "People selectively discount the information that they are exposed to in the light of their prior attitudes."

Dawson[15] conducted a study to determine whether students' attitudes could be favorably changed when exposed to a particular course. He concluded that students' attitudes toward a particular subject did change in a significantly positive direction upon completion of his investigation.

Elley[16] explored the possibilities of inducing favorable attitudes in the area of international understanding in a class of 14 year-old boys. A special program was designed for this purpose, based on specially selected content and teaching methods. He concluded, upon testing his group, that their attitudes did show a significant improvement over what had been measured previously. He also concluded that teachers can make a contribution to the promotion of attitudes favorable to international understanding.

---

[13] Robert Bohlke, "Authoritarianism and Attitudes of College Students Toward India," Journal of Educational Sociology, December, 1960.

[14] G. Murphy and J. Levine, "The Learning and Forgetting of Controversial Material," Journal of Abnormal and Social Psychology, 1943.

[15] George Dawson, "Changing Students Attitudes," Improving College University Teaching, Summer, 1966.

[16] Warwick Elley, "Attitude Change and Education for International Understanding," Sociology of Education, 1964.

Morland[17] in his study on the prejudices that are acquired by young children, indicated that paths may be followed by the schools which can result in the modification of some prevalent attitudes.

While other projects are also concerned with children's cognitive and affective development in regard to others, little research seems to have been done in this area. "Often the new materials are evaluated, primarily, in terms of students' increased interests, teachers' positive statements and parents' enthusiasm."[18]

Dorothy Fraser commented that, "There is great variation among the projects in their provision for evaluating the programs and materials that they are developing....Since many of the projects restrict the release of information about their procedures and materials, it is perhaps premature to form a conclusion about the evaluation measures that are being used."[19]

Interestingly enough, when one of the new programs mounted an evaluation of children's understandings of their world, the results in the categories of interest in foreign cultures and tolerance toward others were described as "obscure."[20] The evaluators felt their measurement techniques were inadequate for the purposes of measuring this important area.

In summation, there appears to be little research information available regarding children's orientations toward other groups. Part of this seems to be due to the lack of adequate techniques for measuring this area. As Cormack says, "Evaluation in international education is a wide-open field for classroom teachers, school systems, and doctoral candidates."[21]

---

[17] J. Kenneth Morland, "The Development of Racial Bias in Young Children," Theory into Practice, Vol. 2, 1963.

[18] Keach, op. cit., p. 8.

[19] Dorothy Fraser, "Status and Expectations of Current Research and Development Projects," Social Education, November, 1965, p. 427.

[20] Harold M. Long and Robert N. King, Improving the Teaching of World Affairs: The Glen Falls Story, Bulletin #15, National Council for the Social Studies, 1964, p. 67.

While several studies have been done investigating programs designed to modify people's attitudes toward others, there is some disagreement as to their success. The structure of the studies themselves may have been an influencing factor. It is interesting to note that the studies that did not find much attitudinal change were conducted on individuals who were past the crucial formative years of childhood.

The new social studies projects have provided little in the area of evaluative materials measuring childrens' attitudes toward others. Therefore, the various methodological paths from which the author could choose seemed to be limited only by their applicability to the situation.

---

[21] Kenworthy, "Challenges in International Education," p. 396.

CHAPTER III

METHODOLOGY

Subjects

For purposes of evaluating primary level children's cognitive and affective development in reference to other cultural groups, two schools in the suburban Richfield, Minnesota, school system, which had employed the Project Social Studies curriculum for two years, were chosen. Portland School and Elliot School share common school boundaries and roughly encompass the area described in census tract RI 47. In the most recent census, there were, in this tract, 1,237 housing units, 1,124 of which were owner-occupied. The average cost of the units was $16,000. The adult population education median was 12.5 years. The employed male adults were mainly found in the technical, craftsmen, foreman, clerical categories. (This information was corroborated by the Richfield Schools Administration Office.) Since the two schools share a rather homogeneous background, they were regarded by the author as one sample, as opposed to two distinct units.

The subjects for the study were children from Kindergarten through grade 3 who had participated in the Project curriculum, and children in the same schools from Kindergarten through grade 3 who had been exposed to the traditional social studies offering. No attempt was made to selectively sample children from the experimental and control groups; all members so designated participated. The following table indicates the number of children who participated at the various levels.

	PROJECT	NON-PROJECT
Kindergarten	59	60
Grade 1	47	48
Grade 2	51	51
Grade 3	50	52
Total	207	211

Certain individual differences in the subject population, such as mental age, travel experiences of the parents, personality differences, and teacher differences were not controlled.

It was hoped that the size of the sample was such as to minimize the effects of these variables.

Methods Employed

As has been indicated, there are few standardized techniques available for the evaluation of children's orientations toward other peoples. No reliable techniques have been offered by the other projects which could serve as possible guides for the measurement of the cognitive and affective development of children involved in the new programs. As a result, the author chose the instruments that seemed the most appropriate for the problem under investigation.

"Evaluation of social studies...at the primary grade level must of necessity rely more heavily upon informal procedures than upon formal ones."[23] An informal technique which has been used in assessing a child's perceptions of his environment is the interview. Yarrow indicates that the technique's, "...adaptability to developmental differences of interviewees and to...requirements of various contents and problems makes the interview an extremely valuable research tool."[24] The study also indicates that the choice of the interview technique over the more impersonal techniques adds the element of the personal relationship in the communication process. "It is likely that in many research situations the interpersonal relationship will contribute substantially to the validity of the data."[25] Consequently, the informal interview was chosen as the major device by which data was gathered for evaluation.

A group interview form, as opposed to an individual interview, was also decided upon. Not only would the group atmosphere have a facilitating effect, but the, "...group situation (would) decrease the amount of anxiety that might otherwise be aroused...."[26]

---

[23] John Jarolimek, "Evaluation in the Social Studies," The Grade Teacher, April, 1963, p. 60.

[24] Marian Radke Yarrow, "The Measurement of Children's Attitudes and Values," Handbook of Research Methods in Child Development, ed. by Paul Mussen (New York: John Wiley & Sons, 1960), p. 668.

[25] Leon Yarrow, "Interviewing Children," Handbook of Research Methods in Child Development, ed. by Paul Mussen (New York: Johy Wiley & Sons, 1960), p. 562.

The form used for the solicitation of information during the interview might be defined as semi-structured. The choice of this form was based on the Yarrow research which indicated that a completely unstructured interview can probe different elements, but lacks a base for comparability. A somewhat standardized interview also tends to limit the operation of interviewer bias. This choice was also determined by the desire to use an interview which, while structured, would remain flexible enough whatever ideas, descriptions, and expressions of feeling that children had about other people, and yet formalized enough to provide a setting for the evaluation of internalized cognitive elements.

Research has also shown that a combination of interview and pictures can be employed successfully in studies of children's perceptions.[27] Since a child's response to a single picture would not be sufficient basis upon which to evaluate cognitive and affective orientations, a series of pictures seemed to be advisable. While structured pictures are apparently more useful than ambiguous ones in helping the child to focus on specific content, some ambiguity seemed to be appropriate to elicit spontaneous responses.

The data gathering technique the author chose to employ was a semi-structured, picture-oriented, group interview. This decision was made on the basis of research previously done using these tools, which, in combination, seemed appropriate for the problem to be examined.

Research Design and Procedures

The group interview revolved around three large, colorful pictures[28] which had been carefully picked to fit the semi-structured criterion set for the entire investigation. The first picture depicted a small Eskimo boy cheerfully eating a raw fish. The second picture was of a "native" family in Kenya, Africa, functioning in various roles for the purpose of cooperatively producing food for their own consumption. The family's immediate environment was also displayed. The third picture was of a market scene in Latin America which showed the people dressed in their traditional holiday costumes. The author felt that these pictures provided enough latitude for the interviewee to interject his attitudes toward others, but structured enough so as to focus on the generalizations stressed in the Project curriculum.

---

[26] Ibid., p. 590.

[27] Leon Yarrow, op. cit., p. 590.

[28] "Earth, Home of People;" "Living in Kenya;" "Living in Brazil;" (Morristown, New Jersey: Silver-Burdett Co., 1966).

The interview itself also followed the semi-structured pattern. Four basic questions about the pictures were decided upon after pre-testing various possibilities on a K-3 pilot group in another suburb. The group was first asked the open-ended question, "What do you see in this picture?" The children's responses, which were received in a nonjudgmental manner, directed the probes which the interviewer took. A "nondirective probe", in the form of a restatement of the response, but ending in a questioning tone, was used to stimulate an elaboration of the expressed content or feeling. Research findings indicate that this form of probing avoids creating anxieties and communicating interviewer biases, thus affecting the validity of the interview.[29]

The sequence began to become somewhat more structured with the introduction of the second question. The group was asked, "How are the people in the picture like you and me?" The Lambert and Klineberg study seemed to indicate that an expression of similarity on the part of the interviewee was an indication of a favorable attitude. The question also provided an opportunity for the children to express generalizations learned in the Project through what Bruner calls the, "process of transformation."[30]

The third question asked was, "How are the people in the picture not like you and me?" Here, again, the responses give some indication as to the orientation of the interviewee toward others, as well as to their cognitive development.

The last question asked was, "If you had a chance, would you like to spend some time with the people in this picture?" This question offered the possibility of tapping other affective responses from the subjects. After the child had been in the interview situation and had had an opportunity to air his thoughts and feelings in a permissive atmosphere, this fairly open question might have elicited some responses that the subject might have been reluctant in voicing earlier.

---

[29] Leon Yarrow, *op. cit.*, p. 582.

[30] Jerome Bruner, *The Process of Education*, (New York: Random House, Inc., 1963), p. 48.

"An adequate transcript of the interview content is a basic requirement for valid analysis of data."[31] As there is a loss of accuracy when the material discussed in an interview is recorded after completion of the interview, "The use of a mechanical recording device is probably the most satisfactory solution to verbatim recording."[32] It has also been suggested that children adapt quickly to an electronic recording device if it is not too obtrusive. It is even thought that an interview may flow more smoothly when the interviewer can give his full attention to the subjects and their comments. Therefore, a tape recorder was used to capture the entire interview as it was being conducted.

The actual interviews generally followed the same procedure. The interviewer was initially introduced to the class by the teacher. Then four subjects were randomly selected from the class and taken to a quiet room. A room that fosters a, "...feeling of privacy, one free from convenient distractions, will facilitate the interview process."[33] Research done by Redl states that a table-centered interview situation will aid in the establishment of rapport and the reduction of anxiety.[34] Consequently, a round table with a microphone in the center, which was attached to a recording device, was the site used for the interview.

To alleviate any additional anxiety, a few minutes prior to the recorded interview were taken to explain the nature of the situation. The subjects were told that they were going to talk about some pictures. They were further informed that their conversations were going to be taped so that the interviewer might listen to the discussion. Since the device was found in many of the homes, its presence was generally accepted without too much comment.

---

[31] Leon Yarrow, _op_. _cit_., p. 593.

[32] _Ibid_., p. 594.

[33] Leon Yarrow, _op_. _cit_., p. 571.

[34] Fritz Redl, "Strategy and Techniques of the Life Space Interview," _American Journal of Orthopsychiatry_, Vol. 29, 1959, p. 3.

Following this "warm up" session, the first picture was introduced, using the question form indicated earlier. The picture was placed in front of the tape recorder to lessen the effect of its physical presence. When it appeared that responses had been exhausted regarding one picture, the next picture was introduced. The same procedure was followed with the second and the third picture. Upon conclusion of the interview, the group returned to their classroom, and a new group of four, randomly selected students took their place. This same process was followed until the entire class had been interviewed.

Since some groups were more verbal than others, the time devoted to a particular interview varied. The average time might be set at approximately 15 minutes for each group.

To control the difference that time of interview might introduce, grades 1-3 experimental and control groups were interviewed during the afternoon. Since the Project curriculum was taught to the kindergarten morning sessions, both the experiment and the control groups were taken from the morning sessions.

CHAPTER IV

RESEARCH FINDINGS

Analysis Techniques

After examining several data analyzing techniques which had been used with interviews, the author chose the content analysis method as the most appropriate tool for obtaining some indications as to the affective and cognitive orientations of children in reference to other groups. This procedure has been defined as being, "...a quantitative classification of a given body of content, in terms of a system of categories devised to yield data relevant to specific hypotheses concerning that content."[35]

The categories within the classificatory scheme can simply note the frequency with which favor or disfavor occurs. This is referred to by Allport as a, "...thematic analysis."[36] The content analysis categories can also be much more complex. The Lambert and Klineberg study used several evaluative categories in which the frequency of the appearance of certain predetermined characteristics was noted.

While, "...analytical frameworks must be adapted to each particular inquiry,"[37] certain guidelines were borrowed to assist in the construction of the classification schemes and categories of this study. Research indicates that collection procedures should be planned within a research design in which the analysis techniques have been anticipated. Consequently, the interview questions regarding similarities and differences (whose presence, as was stated earlier, appears to indicate favor or disfavor) were incorporated into the thematic analysis scheme. The frequency with which similarities were noted by the experimental and control groups was tallied, as was the occurrence of comments regarding differences. Responses regarding similarities and differences were noted when so designated by the subject, without the element of positive or negative orientation being weighed.*

---

[35] Bernard Berelson, "Content Analysis," Handbook of Social Psychology, ed. by G. Lindzey, (Cambridge: Addison-Wesley, 1956), p. 488.

[36] Gordon Allport, Letters from Jenny, (New York: Harcourt, Brace & World, Inc., 1965), p. 197.

[37] Maurice Duverger, An Introduction to the Social Sciences, trans. by Malcolm Anderson, (New York: Frederick Praeger, Publishers, 1964), p. 120.

In the second classification scheme, multiple categories were used to analyze the Project and non-Project children's cognitive and affective development in reference to others. As with the first scheme, the categories were implicit within the research design of the study. As suggested by Berelson, the categories for analysis were contained in the hypotheses or the questions within the problem.

Four categories were formulated: (1) Universal needs, which was based on the question, "Can children at the primary level accept and internalize the idea that there are certain universal needs shared by all people?" (2) Cultural change, which was derived from the question, "Do children at the primary level understand the principles of cultural change?" (3) The different environmental uses category, which was contained in the question, "Can children become sensitized to the idea of cultural diversity?" (4) Patterns of living, which was related to the question, "Are primary level children cognizant of the learning of cultural patterns?"

Certain predetermined indicators were used as aids in denoting the presence of the categorized material. Responses which indicated basic needs such as, "They need protection from the weather," and physiological functions such as, "We all need to eat," were regarded as being relevant to the category, universal needs. Comments which related to cultural borrowing such as, "Maybe American soldiers gave him the ball," and the effects of contact, such as, "I could teach him and he could teach me," served as indicators for the category labeled cultural change. Indicators which signaled an awareness of the learning of cultural patterns were culture traits, such as, "He's learning how to crush stuff from his father." Responses relevant to the category, different environmental uses, were indicated by comments regarding the effects of the physical environment, such as, "They use the materials they have around them," and levels of technology, such as, "They don't have the tools."

---

* Instances occurred where a Project subject mentioned a difference within a favorable context, e.g., "They like different styles."

This classification scheme, then, involves, "...general categories for analysis (which were) translated into...indicators for purposes of actual analysis. The actual results are then generalized and applied to the level of the categories and thus constitute a test of the hypotheses under investigation."[38]

By far the most frequently used forms of reporting content analysis results are the simplest--raw numbers, percentages, proportions, and ratios. This writer chose to use raw numbers and percentages as one method to present results in a tabular form.

For a more powerful analysis of the results, a large-sample Z test of a proportion[39] was used to determine if there were statistically significant differences between the Project and non-Project groups in the categories defined by the content analysis. To reject the null-hypothesis that there would be no difference between the two groups, a Z-score greater than 1.96 was necessary.

Results of the Analysis

The data and results regarding the frequency of responses noting similarities and those noting differences can be seen in Table 1. Included in this table are the raw numbers, percentage of differences, and Z-scores at the .05 level of significance.

TABLE 1

RESPONSES NOTING SIMILARITIES AND DIFFERENCES: FREQUENCY OF PROJECT AND NON-PROJECT RESPONSES, PERCENTAGE OF DIFFERENCES, AND Z-SCORES

	Project	Non-Project	Percentage	Z-score
Similarities	443	361	23%	2.9
Differences	520	524	---	0.0

---

[38] Bernard Berelson, Content Analysis in Communications Research, (Chicago: University of Chicago Press, 1952), p. 164.

[39] Merle Tate, Statistics in Education and Psychology, (New York: The Macmillan Co., 1956), p. 242 (10.5).

According to these results, the Project groups gave 23% more responses noting similarities than did the non-Project groups. Since the Z-score equaled 2.9, the null-hypothesis (that there would be no differences in the number of responses obtained) was rejected. The difference was found to be significant at the .05 level. Since the number of differences noted by the experimental and the control groups was nearly equal, the null-hypothesis was not rejected.

The data and results obtained from the number of responses that fit into the categories, universal needs, different environmental uses, cultural change, and patterns of living are learned, are shown in Table 2. Included in this table are the raw numbers, percentage of differences, and Z-scores.

TABLE 2

CONTENT ANALYSIS CATEGORIES: FREQUENCY OF PROJECT AND NON-PROJECT GROUP RESPONSES, PERCENTAGE OF DIFFERENCES, AND Z-SCORES

	Project	Non-Project	Percentage	Z-score
Universal Needs	71	60	18%	.98
Different Environmental Uses	97	63	54%	2. +
Cultural Change	11	6	83%	1.2
Patterns Are Learned	92	41	124%	4. +

According to these results, the Project groups exhibited a larger number of responses in all of the categories. This is borne out by the percentage of differences noted between the two groups. In addition, in the categories relating to different environmental uses and patterns of living are learned, the Project groups showed a statistically significantly larger number of responses.

Conclusions

From the quantification of the categorized responses, which constitute a test of the questions being investigated, we can now draw some tentative conclusions.

Regarding the question, "Can children at the primary level accept and internalize the idea that there are certain universal needs shared by all people?", the study would seem to indicate that children are capable of this. While the Project groups tended toward a greater awareness of this idea, the results indicated that the control groups were also aware of these needs. This might possibly be attributed to two factors. The question, "How are these people like you and me?" may have cued all groups to respond in a manner relevant to the universal needs category; or the social studies offerings in the control group rooms may also have stressed this area. Nevertheless, a percentage difference in favor of the Project groups does exist, although the difference is not statistically significant.

Rather ambiguous results were obtained from the data relating to the question, "Do children at the primary level understand cultural change?" The raw numbers indicate relatively few responses relevant to this category. The percentage, however, shows the Project groups in a more favorable light, although the difference is not statistically significant. It would seem that a number of things may have occurred: Children at this age level may not be able to comprehend principles of cultural change, the Project materials stressing this idea may not have been dramatic enough for this age group, or the study may not really have assessed this area.

The results regarding the question, "Can children at the primary level become sensitized to the idea of cultural diversity?", seem to show that the groups involved in the Project exhibited a greater degree of awareness. This statement is borne out by the raw numbers, percentage differences, and statistically significant results. On the basis of this data, one could conclude that the Project offerings can have a significantly positive effect on the development of ideas relating to cultural diversity.

The results in the category, patterns of living are learned, show a decidedly significant larger number of responses from the Project groups. It would appear that the Project material can provide experiences necessary for the successful development of concepts and generalizations relating to this area.

If we can surmise from the findings that the children involved in the Project Social Studies curriculum are more cognizant of and have internalized in varying degrees these ideas that apply to the functioning of all human groups, we might also expect them to exhibit "friendly feelings" toward others, as mentioned by Lambert and Klineberg. As was stated earlier, an expression of similarity is an indication of a favorable attitude. Consequently, since the Project groups noted a significantly larger number of similarities in the thematic analysis scheme, one might conclude that their affective orientation toward others is more positive than that found in groups not exposed to the same materials. It could also be concluded that the significantly larger number of responses noting similarities in the Project groups could be accounted for by the Project Social Studies materials since the number of responses noting differences was nearly equal. The findings of the content analysis can now be applied to answering the other questions which were raised within the boundaries of the problem. It was asked whether the schools can play a significant role in the development of attitudes necessary for more effective international understanding. If we can accept the earlier statements that friendly groups exhibit an understanding of others and their ways of life, as well as similarities, the previous conclusion would suggest that school curriculum programs, such as Project Social Studies, can play a role in the fostering of more effective cross cultural understandings. As Piaget states, "...the fundamental affective acquisitions...parallel the intellectual acquisitions."[40]

The discussion of the next question might be viewed as an extension of the preceding one. The question was raised, "Are certain content and teaching strategies conducive to the development of understanding others?" If we can conclude that Project Social Studies materials are effective in developing a more favorable orientation toward other groups, it would seem reasonable to suppose that the strategies and content, which are part of these materials, would also be effective in this area.

---

[40] Barbel Inhelder and Jean Piaget, The Growth of Logical Thinking, trans. by Anne Parsons, (Basic Books, Inc., Publishers, 1958), p. 350.

The last question posed within the framework of the problem was, "Can the effects of social studies offerings on the modification of students' attitudes be measured?" While it has been acknowledged as a highly elusive area, one objective of this study was to measure a new social studies program's effect on children's orientations toward others. In a large, fairly homogeneous population sample, responses to a given set of items should distribute themselves randomly. Since there was a difference of varying degrees between the experimental and control groups, the author can only conclude that the Project did have an effect on the experimental group. Since the effect was in the direction of the stated objectives of the Project Social Studies offerings regarding certain generalizations that can be applied to human groups and the modification of attitudes toward others within the context of these understandings, it would seem that the program modified some attitudes previously held. It could be further concluded that the modification of attitudes was measured, since quantified results were obtained from relevant data.

The foregoing questions were all raised within the framework of the problem, which was to develop a procedure for evaluating primary level children's cognitive and affective development in reference to other groups.

If the conclusions drawn by the author regarding the preceding aspect of the Project Social Studies curriculum are accepted, it would seem to indicate that the program is successful in this area. No evaluative comments can be made regarding the rest of the curriculum in this paper, as its scope was confined to that of functioning as a feasibility study for further, more comprehensive explorations.

CHAPTER V

EVALUATION OF THE STUDY

Summary

The general purpose of this study was to evaluate selected aspects of the Minnesota Project Social Studies curriculum building effort. Since an exhaustive evaluation would have involved large fund allocations, the scope of the study was limited to an attempt to develop a procedure for evaluating primary level (K-3) children's cognitive and affective development in reference to other cultural groups.

Within the framework of this problem, certain specific questions were raised.

1. Can the effects of social studies offerings on the modification of student's attitudes be measured?

2. Can the schools play a significant role in the development of attitudes necessary for more effective international understanding?

3. Are certain content and teaching strategies conducive to the development of understanding others?

4. Can children at the primary level accept and internalize the idea that there are certain universal needs shared by all people?

5. Can children at the primary level become sensitized to the idea of cultural diversity?

6. Can children at the primary level understand principles of cultural change?

7. Are primary level children cognizant of the learning of cultural patterns?

The population that was interviewed involved 207 children from two suburban schools who had been part of the Project, and 211 children from the same schools who had followed the traditional social studies offerings.

A semi-structured, informal interview involving small groups of children drawn from both Project and non-Project classes was taped. Following the transcription of the interviews, the method of content analysis was employed to examine the data.

The group interview revolved around three large, colorful pictures, which had been carefully picked to fit the semi-structured format set for the entire investigation. The pictures depicted an Eskimo, a family from Kenya, and a Latin American community.

Four basic description-oriented questions were asked with each picture to each group at every grade level. The questions were:

(1) What do you see in this picture?

(2) How are the people in the picture like you and me?

(3) How are the people in the picture not like you and me?

(4) If you had a chance, would you like to spend some time with the people in the picture?

A "nondirective probe" was used to stimulate additional responses to an initial response. This also allowed for the pursuance of any interesting trains of thought that emerged.

A system of content analysis was devised for data examination. In one, the frequency of responses noting similarities and those noting differences was compared for the two groups. In the second classification scheme, the number of responses that fit into the following categories, (1) universal needs (2) different environmental uses (3) cultural change (4) patterns of living are learned, was compared for the two groups.

A large-sample, Z-test of a proportion was used to determine if there were statistically significant differences between the Project and non-Project groups in the categories defined by the content analysis. A significance level of equal to or greater than .05 was required in order to reject the null-hypothesis which was that there were no differences between the groups.

The following results were obtained. The Project groups had a significantly larger number of responses noting similarities. There was no significant difference between the two groups in the number of responses noting differences. The Project groups showed a significantly larger number of responses in the categories of different environmental uses and patterns of living are learned. While the other two categories did not reveal any significant differences, the Project groups did have a larger number of responses than did the non-Project groups.

From the results it was concluded that questions 1, 2, 3, 4, 5, and 7 were supported, while no conclusions could be drawn about question 6 due to ambiguous findings. It was also concluded that the study did develop a procedure for evaluating primary level children's cognitive and affective development in reference to other groups.

Other Findings

While the following comments have no direct bearing on the problem under examination in this study, they tend to corroborate findings from previous studies, or suggest avenues for future investigations. No attempt is made to explain their existence, only their presence is noted.

Recent research has suggested that children today are more interested in far-away places and people. The large number of responses in the affirmative to the question, "Would you like to spend some time with the people in this picture?", would tend to support this trend. The children from both the experimental and control groups expressed an interest in the environment and living patterns of the people in the pictures. The individuals who expressed negative comments, based them upon a dislike for the skin color, primitive surroundings, and/or climatic conditions depicted.

The Lambert and Klineberg study found that, "All national groups of children except the Brazilian and Japanese nominate the African Negroes as dissimilar."[41] The number of differences* noted by the Project and non-Project groups were highest in reference to the Kenya family picture.

The Lambert and Klineberg research also found that American children tend to think of themselves as residing in a wealthy nation. Several responses were noted in this study which related to the comparative poverty of others.

---

[41] Lambert, op. cit., p. 106.

* The Project groups gave 269 responses, the non-Project groups gave 288 responses.

There were indications in this study that the children who had been exposed to the traditional social studies offerings tended to attach a national label to the groups shown in the pictures more often than did the groups exposed to the Project Social Studies material.

Throughout this study, comments on the skin color of the pictured individuals appeared earlier among the control group subjects than among the experimental group members.

BIBLIOGRAPHY

Books

Allport, Gordon. *Letters from Jenny.* New York: Harcourt, Brace & World, Inc., 1965.

Allport, Gordon. *The Nature of Prejudice.* Boston: Beacon Press, 1954.

Berelson, Bernard. "Content Analysis." *Handbook of Social Psychology.* Edited by G. Lindzey. Cambridge, Mass.: Addison-Wesley, 1956.

Berelson, Bernard. *Content Analysis in Communications Research.* Chicago: University of Chicago Press, 1952.

Borg, Walter. *Educational Research.* New York: David McKay Co., Inc., 1963.

Bruner, Jerome. *The Process of Education.* New York: Random House, Inc., 1963.

Douglass, Malcolm. *Social Studies.* New York: J.B. Lippincott Co., 1967.

Duverger, Maurice. *An Introduction to the Social Sciences.* Translated by Malcolm Anderson. New York: Frederick Praeger, Publishers, 1964.

English, Horace B., and English, Ava Champney. *A Comprehensive Dictionary of Psychological and Psychoanalytical Terms.* New York: David McKay & Co., Inc., 1958.

Inhelder, Barbel, and Piaget, Jean. *The Growth of Logical Thinking.* Translated by Anne Parsons. Basic Books, Inc., Publishers, 1958.

Lambert, Wallace, and Klineberg, Otto. *Children's Views of Foreign Peoples.* New York: Appleton-Century-Crofts, 1967.

Taba, Hilda. *Curriculum Development.* New York: Harcourt, Brace & World, Inc., 1962.

Tate, Merle. *Statistics in Education and Psychology.* New York: The Macmillan Co., 1965.

Yarrow, Leon. "Interviewing Children." *Handbook of Research Methods in Child Development.* Edited by Paul Mussen. New York: John Wiley & Sons, 1960.

Yarrow, Marian Radke. "The Measurement of Children's Attitudes and Values." Handbook of Research Methods in Child Development. Edited by Paul Mussen. New York: John Wiley & Sons, 1960.

Periodicals

Bjerstedt, Ake. "Informational and Non-Informational Determinants of Nationality Stereotypes." Journal of Social Issues. Vol. 18 (1), 1962.

Bohlke, Robert. "Authoritarianism and Attitudes of College Students Toward India." Journal of Educational Sociology. December, 1960.

Cajoleas, Louis. "International Understanding." Teachers College Record. January, 1960.

Dawson, George. "Changing Student's Attitudes." Improving College University Teaching. Summer, 1966.

Elley, Warwick. "Attitude Change and Education for International Understanding." Sociology of Education. Vol. 37, 1964.

Fraser, Dorothy. "Status and Expectations of Current Research and Development Projects." Social Education. November, 1965.

Girault, E., and Cox, Benjamin. "Review of Research in the Social Studies: 1966." Social Education. May, 1967.

Jarolimek, John. "Evaluation in the Social Studies." The Grade Teacher. April, 1963.

Kenworthy, Leonard. "Ferment in the Social Studies." Phi Delta Kappan. October, 1962.

Kenworthy, Leonard. "Challenges in International Education." Teachers College Record. April, 1956.

Keach, Everett T., Jr. "International Education in the Elementary Schools--Some Problems and Prospects." Unpublished manuscript. 1967.

Morland, J. Kenneth. "The Development of Racial Bias in Young Children." Theory into Practice. Vol. 2, 1963.

Murphy G., and Levine, J. "The Learning and Forgetting of Controversial Material." Journal of Abnormal and Social Psychology. 1943.

Redl, Fritz. "Strategy and Technique of the Life Space Interview." American Journal of Orthopsychiatry. Vol. 29, 1959.

Shaftel, Fannie. "Cultural Understanding in a World Community." Educational Leadership. May, 1962.

Collected Documents

Census Tract RI 47. United States Census of Population and Housing, 1960. Minneapolis-St. Paul Standard Metropolitan Statistical Area. U.S. Department of Commerce. Bureau of Census.

LARGE-SAMPLE Z-TEST OF A PROPORTION

7 Step Procedure

1. Hypotheses:

   Null Hypothesis: Ho : $p = P$
   There is no difference between the hypothesized proportion (P) and the obtained proportion (p).

   Alternative Hypothesis: H, : $p \neq P$
   There is a difference between the hypothesized proportion (P) and the obtained proportion (p).

2. Level of significance = .05.

3. Test Statistic

$$Z = \frac{p-P - \frac{1}{2N}}{\frac{P(1-P)}{N}}$$

$$p = \text{obtained proportion} = \frac{\#\text{ of responses by Project groups}}{\text{Total }\#\text{ of responses}}$$

P = hypothesized proportion of Project responses = .5.

N = total number of responses

4. Z is distributed normally with a mean of 0 and a standard deviation of 1 if Ho is true.

5. Reject Ho if Z is greater than 1.96.

6. Calculate Z (See text of paper for results).

7. Accept or reject Ho on the basis of the value of the test statistic. (See text of paper for decisions.)

APPENDIX # 3

FINDINGS OF QUESTIONNAIRE STUDY ON E.R.D.C. IN-SERVICE TRAINING PROGRAM

Participating District Evaluation
of the E.R.D.C. Project Social Studies
In-Service Training Program

1. How many teachers do you have enrolled in the E.R.D.C. program?

    a. In the primary grades? _____
    b. In the upper elmmentary grades _____
    c. At the Junior high level ____
    d. At the Senior high level ____

2. What were the primary reaaons for your district sponsoring teacher in-service training in the use of Project Social Studies materials?

3. How well do you feel these reasons were satisfied by the in-service training program?

4. To what extent have you been able to talk with your teachers enrolled in the training program?

5. What have been the most troublesome problems for you in implementing the project in your system?

6. What, if any, feedback have you received from parents of students in the project classes?

7. What suggestions would you have for improving any future in-service training program?

8. Would you wish to have some form of in-service training programs in the use of Project Social Studies in the next year? If so, what type of programs? By whom would you suggest that these be handled?

Project Social Studies E.R.D.C. In-Service Training Program EVALUATION

Grade level ________

1. Why do you believe that the Project Social Studies Curriculum was developed?

2. In what ways do you believe that the Project Social Studies Curriculum is different from your existing curriculum?

3. If you were to teach the course which you taught before using the Project Social Studies course, do you think you would teach it any differently? If so, how?

4. Would you like to teach P.S.S. courses next year? Why?

5. How useful do you think the overall E.R.D.C. program has been in helping you to teach the course at your grade level?

6. In terms of specific aspects of the program, how would you rate the following?

	Very Useful	Useful	Of little Value	No Value
a. Receiving knowledge of the Project rationale through large group presentations				
b. Receiving knowledge of the Project rationale through small group presentations				
c. Receiving content background through your small groups				
d. Receiving knowledge of reading materials through your small groups				
e. Receiving knowledge of A-V materials through your small groups				
f. Receiving knowledge of specific teaching procedures through small groups				
g. Receiving help in your ability to develop materials through your small groups				

Comments:

7. Do you think you could have adequately taught the project units:

   a) Without the 1967 Spring Sessions? Yes____ No____

   b) Without the extensive in-service training program carried on throughout the year? Yes_____ No_____

8. Do you think that the length of each bi-weekly session was satisfactory? If not, how would you change it?

9. Do you think that the number of sessions has been satisfactory? If not, how would you change it?

10. What remuneration were you given by your school district for attending this training program? Do you consider this sufficient?

E.R.D.C. Instructor Evaluation

1. What is your evaluation of the in-service training program in terms of:

   a) length of individual sessions?
   b) number of sessions?

2. What is your evaluation as to the class size which you taught? Should it have been smaller? larger?

3. Which activities which you used in your instruction seemed to be most satisfactory? Why?

4. How useful were the large group lectures on the Project Social Studies' rationale and framework given last spring? Should more have been used throughout the training program?

5. How well do you believe your people understood the purpose, methodology and values of P.S.S.?

6. What kinds of problems seemed most troublesome for you in working with the small groups?

7. Has the teaching of these in-service meetings been of value to you in terms of professional growth?

8. Would you be willing to be an instructor again? If so, under what conditions?

9. Could you suggest other teachers who might be willing and capable of handling another in-service program?

APPENDIX # 4
CHELMSFORD PUBLIC SCHOOLS
CHELMSFORD, MASSACHUSETTS

EVALUATION OF SOCIAL STUDIES PROGRAM

Name ____________________

Experience: Less than 1 year 12%

1 - 3 years 28%

4 - 6 years 27%

7 - 10 years 9%

Over 10 years 24%

Education: (check where applicable) Bachelor's Degree 96%

Master's Degree 12%

Social Science Courses Taken:

Anthropology 18% History 81%

Sociology 78% Geography 69%

Economics 36%

Political Science 30%

Present Grade Level: 1 24% 2 37% 3 36% 4 3% 5 ____ 6 ____

No. of Teachers
Title of Units: Hopi 3 Quechua 2 Japanese 3 Hausa 8 Kibbutz 4

Russian 4 Gold Mining 4 Paris 5

Economics 1

How many minutes per week do you feel social studies should be taught at your level? 1st Gr. 90 2nd 115 3rd 90 Av. 90

At this rate, how many weeks would you suggest that this unit be developed? 1st Gr. 8 2nd 7 3rd 6 Av. 7

NOTE: In items with a 1-5 choice, circle one number evaluating the effectiveness of the category stated. FIVE is the most effective while ONE is the Least effective.

In multiple choice items check the response (s) that you consider most nearly describes your feelings regarding the category stated.

1.0 Rationale and Objectives

1. 1 Rationale

To what extent does the program relate to the goals of the social studies in the Chelmsford Public Schools?

1 3% 2 3 36% 4 18 5 33%

1. 2 Specific Objectives

To what extent does the program develop its stated objectives relative to

1. 21 culture concepts
1 2 15%
3 18% 4 27%
5 42%

1. 22 geographic or site concepts
1 3% 2 21%
3 24% 4 36%
5 27%

1. 23 gathering information skills
1 12% 2 9%
3 48% 4 24%
5 15%

1. 24 geographic skills
1 2 15%
3 39% 4 27%
5 24%

1. 25 inquiry or problem solving skills
1 6% 2 24%
3 33% 4 27%
5 9%

1. 26 attitudes or values

1 ____ 2 6%

3 6% 4 33%

5 24%

2.0 Antecedent Conditions

What are the particular conditions for which the program is designed and under which it is most likely to be successful? See conditions below

2. 1 Pupil Characteristics

2. 11 With what kinds of pupils was the program successful?

84% Total Class 3% Gifted 6% Boys

____ Under-Achievers 18% Average 6% Girls

2. 12 With what kinds of pupils was the program most effective?

48% Total Class 24% Gifted 3% Boys

6% Under-Achievers 21% Average 9% Girls

2. 13 With what kinds of pupils was the program least effective?

9% Total Class 3% Gifted ____ Boys

63% Under-Achievers 3% Average 3% Girls

2. 14 What kinds of pupils were most interested in the program?

51% Total Class 18% Gifted 9% Boys

6% Under-Achievers 33% Average 3% Girls

2. 15 What kinds of pupils were least interested in the program?

6% Total Class ____ Gifted ____ Boys

51% Under-Achievers 3% Average 6% Girls

2. 2 Teacher capabilities and requirements

15% My background and experience enabled me to handle the unit effectively.

24% An in-service course would have enabled me to handle the unit much more effectively than I was able to.

78% I had to do a lot of background reading in order to teach the unit effectively.

6% Other (please list)____________________

____

____

2.3 Community

100% I believe the community is open to innovative programs such as this one.

____ The people of this town are not ready for such an innovative social studies program.

2.4 School

Conditions that became problems in attempting to use the materials and teaching strategies suggested in the program.

33% Adequate space for display material.

15% Natural and artificial lighting in classroom.

33% Size of classroom for conducting small group activities.

18% Availability of special equipment such as 16MM projectors and the like.

12% Other (please list)____________________

____

3.0 Content

3.1 Cognitive Structure

3.12 Was the subject matter relevant and of interest to your class? 1 3% 2 15% 3 12% 4 36% 5 36%

3.13 How well are the concepts from the following disciplines developed?

3.131 Anthropology 1 12% 2 15% 3 33% 4 27% 5 9%

3.132 Sociology 1 2 12% 3 30% 4 9% 5 39%

3.133 Political Science 1 6% 2 39% 3 30%
4 12% 5 3%

3.134 Economics 1 2 9% 3 45%
4 24% 5 21%

3.135 History 1 9% 2 24% 3 24%
4 30% 5 15%

3.136 Geography 1 3% 2 6% 3 30%
4 33% 5 24%

3. 2 Affective content

To what extent does the program teach attitudes or values? 1 2 6% 3 42% 4 27% 5 21%

4.0 Instructional Theory and Teaching Strategies

4. 1 Program's Orientation

4.11 The program seems

45% teacher centered
57% pupil centered

4.12 The program seems to

93% foster inquiry
6% stifle inquiry

4.13 The program seems to

75% develop concepts and generalizations
36% teach many facts

4. 2 Teaching strategies or techniques

What are the dominant teaching techniques? Place in rank order - ONE being the most dominant, FIVE being the least dominant.

2 Teacher-to-student (lecture, demonstration)
1 Resource-to-student (books, films, transparencies)
3 Teacher-student interactions (discussion)
5 Student-student interactions (role playing, debate, simulation)

___4___ Student-resource interactions (individualized or programmed instruction)

4.3 Use of teaching techniques or strategies

___66%___ There is a good variety and balance of teaching strategies.

___33%___ One type of teaching technique tends to dominate. Which one?__________

5.0 Media or Materials

5.1 Materials available from the project

How effective or helpful were the following?

5.11 Background paper for the teacher

1 3% 2 15% 3 21% 4 21% 5 36%

5.12 Supplemental materials for the pupil contained in the resource unit for the teacher.

1 15% 2 15% 3 27% 4 36% 5 6%

5.13 Teaching techniques suggested in the resource unit.

1 3% 2 15% 3 30% 4 39% 5 12%

5.14 Bibliography

1 3% 2 3% 3 33% 4 30% 5 24%

5.2 Media avilable from the town

How effective or helpful were the following?

5.21 Films

1 12% 2 3% 3 12% 4 27% 5 42%

5.22 Filmstrips

1 9% 2 9% 3 18% 4 27% 5 30%

5.23 Books

1 6% 2 9% 3 30% 4 39% 5 12%

5.24 Slides

1 6% 2 9% 3 21% 4 12% 5 21%

5.25 Magazines

1 6% 2 27% 3 15% 4 18% 5 9%

5.26 Transparencies

1 9% 2 27% 3 21% 4 12% 5 15%

5.27 Realia or artifacts

1 12% 2 12% 3 12% 4 15% 5 ---

5.28 Recordings

1 3% 2 21% 3 27% 4 21% 5 6%

5.29 TV Programs

1 12% 2 9% 3 9% 4 12% 5 9%

5.30 Film Loops

1 12% 2 3% 3 9% 4 6% 5 3%

5.31 Other (Please list)____________

1 3% 2 --- 3 3% 4 --- 5 3%

6.0 Overall Judgements

6.1 Comparison

In comparing this program with other social studies programs you have used, how does it compare?

87% more effective
3% less effective
6% no different

6.2 Teacher Judgement

Based on your experience with the program how would you describe it? Check any descriptions you feel applicable.

72% Effective 87% Interesting 15% Strong
63% Stimulating 48% Meaningful 27% Satisfying
57% Challenging 24% Time consuming ___ Boring
___ Dull 6% Ineffectual – Waste of time
48% Rewarding ___ Other____________

6.3 Pupil Judgement

Based on the experiences your children had with the program, how would they describe it? Check any applicable.

54% Effective 54% Interesting 9% Strong

__48%__ Stimulating __51%__ Meaningful __36%__ Satisfying
__48%__ Challenging __3%__ Time consuming __6%__ Boring
_____ Dull __6%__ Ineffectual _____ Waste of time
__27%__ Rewarding __12%__ Other ____________________

6.4 Parent Judgement

Based on any feedback you have had from parents, how would you describe their reactions to it? Check any applicable.

__54%__ worthwhile for children
__75%__ child talked about it often at home
_____ child seemed disinterested in program
__3%__ Other ____________________

6.5 The Program

Granted that this was a field test program, would you recommend that this program be adopted at your level if the resource units and complete sets of materials were available to each teacher?

__97%__ Yes
__3%__ No

6.6 Effect

If you had to go back to teach what you were teaching before this program, would you teach it any differently? ____________________

If so, how? ____________________

____

6.7 General Comments:

____

____

____

____

* Adapted by Charles L. Mitsakos, from the Curriculum Analysis System developed by the Social Science Education Consortium at Boulder, Colorado.

6.7 GENERAL COMMENTS:

"Good unit. Children are already familiar with community helpers before entering second grade. This is so much more interesting, challenging and does prepare children for intelligent participation in a free society."

"It's an interesting unit, but too many concepts involved for these young minds. I think we should have a 'love America' unit instead."

"I found the previous social studies program very difficult to teach for it did not stimulate inquiry as the new one (M.P.S.S.) has. The old program was trite to the children so they appeared disinterested. Creativity and thinking were stifled. I found that this social studies program fostered positive attitudes in the children toward their own family environments and a genuine respect for others. The children were eager to learn more of other family cultures as a result. The children and I both enjoyed the variety of materials used. I believe Chelmsford would be headed in a very positive direction if they adopted this free social studies program."

"I feel that this program could be quite effective and worthwhile if enough material were provided both for teacher and children...More interesting community than the Manus could be selected."

"I thought it was fun for both child and teacher once the teacher 'boned' up considerably on the material. The idea of 'universality of culture' to be learned is great and the scope of the second grade should certainly extend beyond the Chelmsford Post Office."

"I never liked the other program and neither did the children. It was dull then and probably still would be. The children were enthusiastic about this (M.P.S.S.)......
It was a great experience for both teacher and pupil."

"I didn't like the set up of the teacher's guide in this program. Also they didn't give enough suggested activities (for the gold mining community unit)."

"I think taking a broad topic and studying it is more interesting and meaningful for the children. Wish more materials were available."

"In comparison to last year's social studies program, I would prefer this (M.P.S.S.) but I do not feel that I can wholeheartedly endorse this program without further experience with the entire program."

"Since I have never been very faithful in teaching the old social studies, I'm afraid it would, in turn, be a negative subject again (if I had to teach it again). The materials were very limited and the children disinterested. By teaching this unit, I feel today's children have become more appreciative and more aware of their own culture and also more inquiring of other cultures."

"Children were enthused with this unit....learning took place during each lesson....children and teacher enjoyed the change."

"I think more units without going into them too deeply would be worthwhile."

"Program was geared to a higher level of learning...concepts never given at grade two level before and children therefore lacked an understanding of many parts of the program!"

"I don't think you can compare teaching the policeman, fireman, postman and highway department to these units."

"Enjoyed teaching this unit and the children enjoyed it too. They were most enthusiastic."

"It would be difficult to return to the old program - ugh!"

"It's about time someone initiated a program like this that is so in tune with the times."

"Much of the day (first grade) is given to reading....training in work habits, adjustment to school rules. There is a wealth of material in the units...I wonder if we can do justice to it without dragging it out over so many weeks that interest may diminish. I do think it important that the children learn about other peoples. I think they found it interesting and stimulating...These children in Chelmsford have a readiness for a progressive social studies program, have a need to be stimulated by such a program."

"It is absolutely necessary to have good audio-visual equipment and a darkened room for this program to be totally effective."

"Very effective....Many good discussions were stimulated by the use of the excellent audio-visual aids."

"I enjoyed the unit as did my class....became a little bored toward the end."

"I think we should stay with this program rather than going back to the old. I really enjoyed teaching this unit. The children acquired many skills. They were enthusiastic and very interested in learning how other children live and learn."

"We truly enjoyed most of this unit....the varied activities seemed to hold all the children's attention. Some discussions did not really prove worthwhile because they were too steep."

"Stimulating - has a high interest level for first graders."

APPENDIX # 5

The Social Sciences Disciplines in the Minnesota Project Social Studies Curriculum

Grade	History	Geography	Anthropology	Sociology and Soc. Psych.	Economics	Political Science
X	--	Major Focus*	Culture concept used. Imp't in unit on Home of Many Peoples.	--	--	--
1	Incidental but units on early Indians of Minnesota and on early Hopi Indians	Part of each unit.	Major Focus on (concepts and content)	Study of own family by way of contrast with others	Very incidental. Building background needed for trade and specialization	--
2	Incidental but unit on Early Bostonian Family	Part of each unit.	Major Focus on (concepts and content)	Concepts taught	Concepts needed for more thorough study (e.g. specialization, trade, money)	--
3	Incidental but unit on Early Mining Community	Part of each unit.	Major Focus on (concepts and content)	Important in study of own and contrasting communities in U.S.	Incidental-study of some concepts needed later.	Intro of ideas of law and government in

* Where major focus is written in caps, the course focuses primarily upon one discipline and dealswith it fairly systematically. However, it still draws upon the other disciplines.

Grade	History	Geography	Anthropology	Sociology and Soc. Psych.	Economics	Political Science
						each unit. Particularly heavy focus in unit on mining community.
4	Incidental in one unit.	Part of each unit.	Important in two units: community in India and Trobriand Islanders.	--	Major Focus (on concepts and content)	Incidental in twos units.
5	Historical aspects in each of geog. case studies	MAJOR FOCUS	Use of culture concept	Use of culture concept	Incidental ec. geog.	Incidental.
6	MAJOR FOCUS	Incidental Imp't in unit on westward movement	Use of culture concept. Also important focus in units one & seven.	Incidental	Incidental	Incidental but attention to pol.system of Indians.

Grade	History	Geography	Anthropology	Sociology and Soc. Psych.	Economics	Political Science
7	--	C. events only	Important part of several units	MAJOR FOCUS	--	Incidental on role of government in dealing with social problems
8	Incidental--use of historical case studies. See also 8-9 below.	Incidental in several case studies. See also 8-9 below.	Use of culture concept.	Use of culture concept. Use of case studies drawing on field of minority group relations.	Use of case study drawing on labor-management relations.	MAJOR FOCUS
8-9 (A unit on the Middle East will be taught in non-election years. It will alternate with study	Historical background for area study on Middle East.	Geographic background in study of Middle East	Use of culture concept and study of culture of Middle East	Study of social systems and social problems in Middle East	Study of economic systems in Middle East	Study of governments in Middle East and foreign policy decision-making Study of elections

Grade	History	Geography	Anthropology	Sociology and Soc. Psych.	Economics	Political Science
of current election.)						
9	--	Important in one unit-- on Poverty	Culture concept important	Important in unit on Poverty	MAJOR FOCUS*	Incidental--role of government in economy
10	MAJOR FOCUS*	Incidental	Use of culture concept as focus for study of historical periods	Important emphasis--focus one unit. Development of concepts.	Important emphasis--focus two units.	Concepts and ideas provide focus for several units.
11	Important in each area study	Important in each area study	Important in each area study	Important in each area study	Important in each area study	Important in each area study
12	Important in area study on Africa. Hist. background for several	Important in area study on Africa and in unit on Ec. Growth in Undeveloped	Important in area study on Africa and in unit on Ec. Growth of Underdeveloped countries,	Importaat in area study on Africa. Major focus of unit on Race Relations. Important in unit	Important in area study on Africa. Major focus of two units.	Important in area study of Africa. Major focus of two units

Grade	History	Geography	Anthropology	Sociology and Soc. Psych.	Economics	Political Science
	of problems units.	countries.	and in unit on Good Life.	on Good Life.		

SEQUENTIAL DEVELOPMENT OF GENERALIZATIONS

(Showing only major generalizations with first-level sub-generalizations under each)[1]

	Grade Level												
	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Ways of living differ from one society to another and within the same society. Each culture is unique.	X	X	X	X	X	X	X	X		*	X	X	#
a. Ways of living differ from one time to another within the same country; the society is not the same.		X	X										
b. Some groups within a society may not share many cf the values and norms of the wider society and may have developed a number of values and norms of their own.				*							X		
c. Human beings have the potential to exhibit exrremely variable behavior, depending upon their natural and cultural environment; they satisfy their drives and needs differently.		X	X	X	X			*					
d. People in different societies (and different groups within a society) differ as to how they expect people to act and as to what they think good and bad.		X	X	X	X	X	X	#		#	#	#	#
e. Although all societies have some kind of religion(s), religious beliefs differ from society to society.				X	X		X			#		#	
f. Social organization differs from one society to another.		*	*	*	*		X			*		X	
g. Economic systems and organizations differ from one society to another.					X		X			#	#	#	#
h. Political organization differs from one society to another.							X			#		#	#

---

[1] The complete list of generalizations is found in a background paper.

Key to Symbols:

X An objective of at least one unit in course.
* A sub-generalization of this generalization is listed as an objective of at least one unit in the course.
# Taught in unit but not listed as an objective.

	K	1	2	3	4	5	6	7	8	9	10	11	12
2. A given culture is an integrated whole, based on fundamental postulates or values.				*			X			X	X	X	X
a. A given culture is a network of culture complexes of culture traits which are patterned in a distinctive way.								#			X		
b. The basic values and organization of the society both affect and are affected by religious values of that society.										X	X	#	
3. Culture is learned, not inborn.		X	X	X	X		X	*	*		X	X	
a. People everywhere must learn to behave the ways they do, just as we learn to behave the ways we do.		X	X					*			*	*	
b. In every society human beings learn a culture in the process of growing up; this culture is the learned behavior patterns shared by members of their group.		X	X	X	X			#	*				
4. Much of man's behavior is acquired through a process of socialization (building group values into the individual).		*	*	*			*	X	*		*	*	X
a. Through the process of socialization, individuals become members of a group by learning role expectations and to perform a wide variety of tasks.		*	*	*			X	X			*	*	X
b. Through the process of socialization each individual acquires a self.								X			X		X
c. The individual acquires his attitudes, values, behavior patterns, meanings and experiences about his future -- in other words, the culture of his society-- through the process of socialization.					*	*	*	*	*	*	X	*	*
d. The process of socialization takes place through a number of social agencies.		*	*	*			X	X				*	*
e The process of socialization is a continuous process; the individual acquires new values and patterns of behavior, and a sharp change in his life may result in resocialization.				*			*	X	*	*	*	*	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
5. All people, regardless of where or when they lived or to what race, nationality, or religion they have belonged, have (had) many things in common.	X	X	X	X	X		X	*			*	*	*
a. Human beings are members of the same species; they are far more alike physically than they are different.								X			X	*	X
b. Human beings exhibit the same kinds of emotions (anger, fear, sorrow, hatred, love) although they may express them in different ways and the emotions may be aroused by different things.		X	X	X	X		#	#		#		#	#
c. Human beings everywhere have acquired the need for positive affect (affection) and interaction with other human beings (gregariousness).		X	X	X	X		#	#		#		#	#
d. The broad outlines of the ground plan of all cultures are about the same because men always and everywhere are faced with certain unavoidable problems arising out of the situation given by nature.		X	X	X	*			*				*	
6. Language facilitates communication, the development of an ongoing culture, and reasoning.				*			*	X				*	
a. Language enables man to make his experiences continuous and to apply previous experience to new problems beyond the actual physical experiences; it makes cumulativeness of culture possible.				X				#				X	
b. Written language facilitates communication and the development of an ongoing culture.							X	#				X	
c. The existence of culture is dependent upon man's ability to use symbols in communication.								#				X	
7. Obstacles to communication may be social as well as physical.							*			*		X	X
a. Communication may be hampered by language and culture barriers as well as by physical barriers.							X						
b. Social barriers include language differences, cultural differences, class and caste differences, ideological differences.													X

	K	1	2	3	4	5	6	7	8	9	10	11	12
c. Obstacles to communication may create the belief that other peoples are outsiders and/or enemies.												X	#
8. Individuals know the political system (and people of other countries and groups) as a set of images and pictures created for them by communicators; they react to those images rather than to the real world and real people.							*		*	X	*	X	*
a. Individuals know the political system as a set of images and pictures created for them by communicators; they react to these images rather than to the real world and real people.							X		X	X	X	X	X
b. Individuals know a foreign culture as a set of images and pictures created for them by communicators; they react to these images rather than to the real world and real people.										X		X	
c. Most political communication depends on the use of negative and positive symbols, stereotypes, and other communication "shortcuts;" effective communication depends on the effective manipulation of these symbolic tools.							X		#		X	X	
d. Effective political communication depends both on technological skills and on the skills of the population (literacy or at least a common language).							X			#	X	X	#
e. Control of political communication is effective control of political behavior.										X		X	
9. An institution is an interrelated cluster of roles and the attached meanings and values.							X	*				X	
a. Institutions are a basic and universal way that behaivor is organized in every society.						*		X	*		#	#	#
b. Changes in institutions are consummated by changes in roles and consequently by changes in relations among members of the group involved and between these members and outsiders. Unless these role relations change, the institution does not change despite change in the particular people who assume the roles.												X	

	K	1	2	3	4	5	6	7	8	9	10	11	12
10. Every person lives in many groups, some with direct, intimate association and some much less direct and intimate.				X		*		*	*		*	*	*
a. People live in many groups in addition to their family group.				X									
b. Some groups have direct, intimate face-to-face relationships; others have indirect or less personal, less stable and long-lasting relationships.				X									
c. The larger, the more complex, and the more heterogeneous the society, the greater the number of organizations and associations that exist in it.									X				
d. One of the major causes of factionalism within a group is the involvement of some of its members in other groups and organizations with competing goals and values.									X		X	X	
e. Not all members of any group are exactly alike; they have different motives for joining the group, differing rates of participation, differing degrees of loyalty to the group, and different attitudes toward a number of issues.							X		X				X
f. Groups, including political parties, have latent (hidden or unexpressed) functions as well as manifest (expressed) functions.									X		X		
g. The behavior of people in crowds differs from their behavior in institutions.								X					X
11. People join with others in order to agglomerate their power.							X	#	*	X	*	*	*
a. Workers organize labor unions to agglomerate their power in bargaining with employees. (Several m										X	X	X	
b. Political organizations act in the political system to organize and mobilize the political power of individuals or aggregates behind candidates for office and policy alternatives.									X	*	*	X	*
c. Voluntary organizations create new and autonomous centers of power to compete with established political leaders in politically relevant skills.								*			X		*

	K	1	2	3	4	5	6	7	8	9	10	11	12
d. Struggle may bring together otherwise unrelated persons and groups. Coalitions and temporary associations will result from conflicts where primarily pragmatic interests of the participants are involved.									X	X	X	X	X
e. Nations may pool their power behind common goals in varying systems of alliances and combinations.					*	X	*			X		X	X
12. Members of any organized group delegate responsibilities and rights; they assign certain role behaviors; this division of labor is likely to create hierarchial authority relationships.				*	*		X	*	X		*	*	*
A. Members of any group are likely to delegate responsibilities and rights; they assign certan role behaviors.				X	X								
b. Large groups are frequently organized as bureaucracies in order to accomplish goals. The behavior of individuals is affected by the formal rules of the bureaucracy.								X					
c. The leadership of any group must try to maintain the group cohesion and harmony and must also organize its strategies to achieve its goals.				X	X				X		X	X	X
d. The type of leader tends to differ in different situations which require different kinds of leaders if they are to be effective.									*		*	*	X
e. In general the "style" of the leader is determined more by the expectations of members of the group and requirements of the situation than by the personal traits of the leader; however, personal factors do make for differences in style.									X				
13. Behavior consists of the actions of men in a large number of situations.								X					
14. Conflict involves a struggle over scarce and valued things, material and non-material; it is personal and antagonistic.							*	X	*	*	X	*	*
a. Groups may engage in power conflict; one group tries to dominate another in order to take something from it, such as labor or wealth.							X	X	#		X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
b. In political conflict there is a struggle over goals; the conflicting sides attempt to use the authority of the political system to win the conflict.									#			X	
c. Conflicts in which the participants feel that they are fighting for ideals are likely to be fiercer than those which involve only personal reasons. Religious conflict may be very fierce and aim at the complete annihilation or conversion of the enemy.										X		X	
15. Continued engagement in conflict tends to bring about acceptance by both parties of common rules regulating the conduct of the conflict.									X		X	X	X
16. Conflict serves to establish and maintain the identity and boundary lines of societies and groups.							*		X	X	X	X	*
a. Conflict with another group leads to the mobilization of the energies of group members and to increased cohesion of the group.							X			X		X	
b. Groups engaged in continued struggle with the outside tend to be intolerant within. They are likely to tolerate only limited departures from group norms.											*	X	X
17. Accommodation may occur between or among individuals having equal status and power or it may occur when one individual or group is in a dominating position and can force other individuals or groups to accommodate.							*		*	*	X	X	*
a. Conflict may be ended by accommodation without compromise, by one side giving in completely to the other.									X			X	
b. Accommodation between antagonistic parties is possible only if each is aware of the relative strength of both parties.							X		X				
c. Political compromise consists of bringing various conflicting political positions or interests into a commonly-acceptable intermediate position.							*		X	*	X	*	*

	K	1	2	3	4	5	6	7	8	9	10	11	12
18. Whenever things valued by a society are scarce, there will be differential access to and control of these valued and scarce things by sub-groups within the society.					X		X			X	X	X	X
a. Control of one or a few scarce and valued things may enable a group to get control of other scarce and valued things and thus to pyramid their control (i.e. achieve power).									#		X	X	X
b. Every society provides for differentiation of status among its members on the dimensions of age and sex plusadditional aspects of differentiation.					*		X			*	*	X	
c. Class membership has certain effects on life and behavior (class correlates).											X	X	
d. Members of a class can move out of the class by various means, and this mobility may be up or down.											X	X	
e. Members of a caste cannot move out of their caste, although as the caste system changes, there is more likelihood of vertical mobility.					X							X	
f. The amount of class conflict is related to the degree of difference among classes, the degree of vertical mobility possible, the degree to which propaganda is used to arouse class conflict.												X	
19. Differential treatment of individuals because they are members of a particular group presents a problem for our society because of the conflict with our basic cultural values and because of the wide-ranging effects of that discrimination on society as a whole and on individual members of the society.							#	X			#		X
a. Frustration may result in aggression (physical or non-physical).							X	X		X		X	X
b. Frustration and/or self hatred or self-doubts may lead to apathy.							X	X			X		X
20. The nature of discrimination and prejudice against a specific group is the result of particular group interactions over time.							X	X		X	X	*	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
a. Because discrimination precedes prejudice (historically and in most individual cases), it is not necessary to destroy prejudice first in order to bring about an end of most kinds of prejudice-producing discrimination.								X					
b. The easier it is to distinguish a minority group by some physical characteristic, the harder it is for that group to gain full acceptance by the wider society and to move out of one social class into another one.							X						
c. People frequently base their actions upon a stereotype or a generalized picture which assigns to all members of a group a set of characteristics which are true for only some of them.							X	#					#
d. People try to work out rationalizations for actions which are inconsistent with their basic values.							X	X		*	X	X	X
e. Authoritarian personalities tend to be conformist, to use stereotyped thinking, and to project their own traits which they consider undesirable onto other people; many prejudiced people are authoritarian personalities.								X				X	X
21. Although culture is always changing, certain parts or elements may persist over long periods of time.		X	X	X	X	X	X	*	X	X	X	X	X
a. Culture changes, although it changes more rapidly and drastically in some times and places than in others.		X	*	X	X	*	*			*	*	*	*
b. Persistence of culture traits is a result of either a reluctance to change or a lack of exposure to conditions which further change.				X	*		X	*		X	*	X	*
c. Some values are conducive to change; some make change difficult.				X	X	X	X			X	X	X	X
d. To be successful, a person who tries to introduce technological change into another country or society must analyze many factors before selecting techniques to be used.							X			X		X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
e. Broad-scale trends in the emergence of cultural forms are demonstrable; over time these forms have passed from simplicity to complexity.												X	
22. All societies develop means of enforcing laws (or rules) and working out new laws.				X	X	*	*	*	X				*
a. Every society must have some minimum of order or regularity of behavior if chaos is to be avoided.								#	X				
b. Some norms are considered so important by a society that they will be enforced through force if necessary; other norms are considered less important.				X					X				
c. All societies have potential conflict and must develop means of trying to settle disputes and accommodate differences; in every society there is some means of making authoritative decisions where people's goals differ.				X			X		X				X
d. The greater the population density and the more complex the technological system, the greater the need for certain governmental services such as roads, public health facilities, public water supply, and institutions for making and enforcing laws.				*		*			X				
e. In many societies governmental institutions are established to enforce laws and work out new laws.				X					#				
23. Governments provide many services which people cannot provide for themselves.				X	X		X		#	#	#	#	#
24. Government action may both protect and help increase or restrict individual rights.				X					X			*	X
a. Government action may create the conditions for the enjoyment of freedom, and basically, it may create the conditions of order and stability without which freedom means nothing; it may also curb non-governmental menaces to freedom.												X	

	K	1	2	3	4	5	6	7	8	9	10	11	12
b. In complex societies, non-governmental aggregates of power or influence may be enemies of freedom in that they may deprive the individual of options just as surely as government may.							*						X
c. Constitutions change by formal amendment and by changes in custom and interpretation.									X	X	X		X
d. The role of the judiciary depends on the system of law and the nature of the constitution it must expound.									X			*	
e. Every legislature is directly a product of the electoral and constituency system which produces it; changes in these systems will bring changes in the composition and loyalties of the members.									#	X		X	
f. The executive is a political institution generally representative of the system as a whole and charged with the application of public policy and with the external relations of the system.									#		X		
g. Selective recruitment of bureaucracy may be and has often been responsible for its definition of its political role.											X		
h. Larger, complex bureaucracies result from the growing governmental roles in mature, industrial societies.											X		
26. Ideologies are important for the structure they give to the political and social system, the answers they give to ambiguous situations, and the cues for responses they suggest; that is, for the ideologue, his ideology is an inarticulate guide, manual, and cue-book to the political and social system.									X	X		X	X
a. People with the same ideologies may perceive the same scene and their ideologies will give it sharply different meaning and significance --maybe even different perceptions of the facts.										*		X	X
b. No country lives up completely to its ideology.									X			X	

	K	1	2	3	4	5	6	7	8	9	10	11	12
c. Ideology is associated with those people in the political system with the greatest political awareness, involvement, and information.												X	
27. Democracy is a political form in which the final policy-making power and all forms of political participation are open to the great numbers of adults in the society -- government by the many rather than the few. In other types of political systems, policy-making and political participation are open only to the few.									X		X	*	
a. Democracy as a political form is based on the general assumption that majorities of citizens are the best judges of what is good for them and that they are entitled to the right to make this choice (or decision).									X		X	*	
b. Democracy is a complicated consent and consensus system in which consent may move from the government to citizen as well as from citizen to government.									X		X	*	
c. Democracies tend to limit the scope of politics more than do totalitarian forms of government.									X		#		
28. Freedom's relationship to democracy is a close and obvious one; the organization of majorities, the competition in goals, and the ability to oppose which democracy presupposes all depend on a high degree of personal freedom.									X	X	X	X	X
a. Constitutions may contain negative prohibitions as well as grants of power and statements of relationships; that is, they may in democracies prevent majority acdion on some subjects.									X		X		
29. The contrast betwen democratic and non-democratic political systems may be looked at as a conflict in basic underlying values.							X		X	X	*	X	X
a. The democratic ideology includes the following values: respect for the individual personality and individual freedom and belief in rationality, equality, justice, rule by law, and constitutionalism.									#	X	X	X	

	K	1	2	3	4	5	6	7	8	9	10	11	12
b. The community demands order and stability -- goals which may be incompatible with the demands of individuals. The continuing attempt to solve the dilemmas of this conflict is, perhaps, the central problem in all attempts to create and modify political institutions.							*		X		X	X	X
30. Political scientists have long assumed that there are social conditions which a society must meet before it can "make a go" of democracy; they hardly agree on what they are, but most suggest common values, a communication system, stable society, and a minimum economic well-being.									*	X	X	X	X
a. There are probably some social conditions which are necessary for a democracy to operate effectively.									X				
b. Democracy does not bear up well in societies in which basic dissatisfactions with the social and economic insitutitons prevail and become the focus of political competition.										X	X	X	X
31. Totalitarian governments extend the scope of politics far beyond the usual to include almost all aspects of life.									X	*		X	X
a. In totalitarian countries the individual's rights are sacrificed for the good of the state.									*			X	
b. The unity and homogeneity of life which totalitarianism demands is contrary to the pluralism of liberal democracy.												X	
c. Recent totalitarianisms have been often symbolized and epitomized by the political leader; in political form they tend to the small oligarchy surrounding the leader.										X		X	
d. Since democracy is the chief political expectation of the times, oligarchy has had to accept the symbols and forms of democracy, if not its substance.										X		X	
e. There are strains between the political ideal of dictatorship and the organizational demands of the modern industrial society.												X	

	K	1	2	3	4	5	6	7	8	9	10	11	12
32. Political power is unevenly distributed through a population even in a democracy; the concept of political equality or one man--one vote, insures only a minimum of opportunity for influence.									X	X	*	X	*
a. Many factors affect the relative influence and power among citizens.								*	X	*	*	*	*
b. An individual may have power at one point in the political system but not at another, that is, political power relates to specific points of decision-making within the political system.									X				
c. Political power may rest in formal government positions, but it need not.									X	*		X	*
33. Decision-making in a large complex society is shared by several groups and is subject to varying influences.							*	*	X	*	*	X	*
a. Political decision-making in a democracy is shared by several groups and is subject to varying influences.									*			X	
b. A law or policy must be effectuated and applied; in that process the whole decision-making and influence process goes on again.									X	X		X	X
c. Decision-making is affected by a number of factors. (Each is listed in a sub-generalization.)							*	*	*	X	X	*	*
d. Executive decisions (or any political decisions) are limited by many factors: permissability, available resources, available time, available information, and previous commitments.									X	X	X	X	
e. Taking the policy-making process as a whole, the general strategic advantage usually lies with the status quo.									X			X	X
34. Economics focuses upon problems related to the production and distribution of goods and services and thus deals with problems of great importance to the lives of people in any society.					#					x	#	#	#

	K	1	2	3	4	5	6	7	8	9	10	11	12
35. Every economic system faces scarcity or a lack of enough productive resources to satisfy all human wants.					X					X	X	X	X
a. A productive resource is anything which can be used to produce goods and services.					X					#			
b. Economic wants of people seem never to be satisfied, since many goods and services must be replenished constatntly as they are used up, since population is expanding, and since new inventions create new wants.					X					X	X	X	
c. If resources are used to satisfy one want, they cannot be used to satisfy another.					#					X	*	X	
d. Production satisfies human wants by converting resources into goods and services which people desire.					X					X			
36. In all societies, people have certain economic goals. Although some economic goals are very much alike, different societies place differing emphases upon them and even have quite different goals.					X					X	X	X	X
a. People generally would like to see their economic system provide both economic growth(and so higher levels of living)and stability (and so economic security).					*					X	X	X	*
b. People differ in the degree to which they desire economic justice or a reduction in inequalities of economic opportunity and income.													
c. People differ in the degree to which they desire freedom of economic choice (of occupation and disposal of income) as a goal of their economic system.					#							X	X
d. Economic goals may not be compatible.										X			X
e. People frequently use their government to help achieve their economic goals.					#					X	#	#	#

	K	1	2	3	4	5	6	7	8	9	10	11	12
37. People tend to work hardest at those jobs for which they receive the greatest incentives (monetary and non-monetary).					X	X				X	*	X	
a. Other things being equal, people wish to sell their labor, land, or capital for the highest income possible in order to obtain the largest amount of desired goods and services possible.					X	X				X	X	X	
b. The incentive to achieve the largest amount of goods and services possible is modified by other incentives such as a desire for prestige, maintainance of personal relationships, a desire for security, a desire to remain in a certain section of the country, a desire for certain kinds of working conditions, a desire for more leisure, occupational preferences, and a belief about what is right.					X					X		X	X
c. In practice, economic incentives in communist countries do not differ greatly from those in mature capitalistic countries in which corporations are run by managers working for salaries rather than owners working for profits.												X	
38. There is a gsp between living levels of the richest and poorest nations.										*	*	*	X
a. Living levels are affected by the amount of goods and services which money incomes can buy, not just by changes in money incomes which may be offset by changes in prices.					*					X	X	X	*
b. People's ideas about what constitutes an adequate level of living on one hand or poverty on the other change as average living levels change.										X	X	X	X
c. It is difficult to compare real wages between countries and over time within one country because of differences in the importance of different types of goods for consumers, because of differences in the quality of goods, because of the diffi culty of assessing the comparative purchasing power of (cont.)					*					X		X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
different monetary systems or the same system over time, because of differences in the amount of socialized benefits provided in different countries or eras, because of variations in living levels among different groups in each country, etc.													
39. At any specific time, the total economic output is affected by the quantity and quality of productive resources (land or natural resources, labor, and capital goods), by the level of technology, and by the efficiency of the organizatinal structure.					X	*				X	X	X	X
a. The ability of a country to produce is limited in part by available natural resources (called land); however, a country may be able to acquire resources from other countryes by selling goods and services which it can produce.					*	*				*	*	*	X
b. Economic output is affected by the quality of labor or labor skills as well as by the quantity of labor.					X	X	*			X		X	X
c. Output is affected by the level of technology.		*	*	*	X	*				*	*	*	*
d. Capital formation through savings is a major means of increasing an economy's total output over time, because it increases productive capacity. Thus it is a means of raising living levels.					X					X	X	X	X
e. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized).			*	*	X	X	*			X	X	X	X
40. Regardless of the kind of economic system, societies go through roughly the same stages of economic growth, even though some stages may not be clearly differentiated from each other.											X	X	X
a. Traditional societies, which look to tradition for guidance and do not welcome technological change, have very slow rates of economic growth.											X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
b. The transitional stage prior to rapid economic growth (takeoff) sees the growth of factors which upset traditional beliefs and practices, give rise to more favorable attitudes toward technological change and businessmen, create larger markets, lead to more accummulation of savings, lead to increased productivity in agriculture and perhaps mining, lead to improved transportation systems, and give rise to the establishment of banks and other financial institutions.											X	X	X
c. During the period of rapid industrialization (takeoff stage) there is an emphasis upon technological development, investment in capital goods, and the development of new industries.											X	X	
d. Following the period of rapid industrialization (or takeoff) there is usually (or may be) a stage of sustained though fluctuating progress toward economic maturity. The rate of investment continues at a high level, and new industries are developed.											X		
e. A mature economy demonstrates that it has the technical and entrepreneurial skills to produce most things that it chooses to produce, given the available state of world scientific knowledge. Such an economy has the capacity to move beyond the original industries which powered its takeoff and to provide levels of living in which the masses of people consumer far above the level of bare necessity. Such an economy is marked by the development of durable consumer goods industries.											X		
f. Not all economies conform to these "ideal" stages or descriptions, but they tend to follow more or less the same pattern of growth.											X		X
41. Barter is inefficient; the development of a monetary system promotes exchange and so a division of labor and greater productivity.					X	*	*			X	X	X	

	K	1	2	3	4	5	6	7	8	9	10	11	12
a. Some societies use barter rather than money in the exchange of goods and services. Barter consists of the exchange of desired goods and services for other goods and services without the use of money.					X	X	X						
b. Money makes exchange easier than barter does since many objects which people might want to trade are not of equal value, do not last well, cannot be divided, or are hard to transport. Money serves as a medium of exchange, as a measure of value, and as a storer of value, and is divisible.					*					X	X		
c. Since banks are not required to keep 100 per cent cash reserves on hand against deposits, they can loan out much of the money on deposit. By granting loans, they can create new money.										*	X		
42. The circular flow of income in a private enterprise system can be broken down into three general types of flows: between business and the public (consumers), between the government and both producers and consumers, and between savers and investors.					X					X	X		X
a. The American economy is made up basically of three major components: householders (who both consume goods and services and supply productive services), business firms (which hire productive services from householders and pay out income to them), and government (which buys goods and productive services, pays out income, and modifies the flow of income through a variety of policies). How each component acts in our system depends largely upon economic incentives.					*					X	*		
b. Many people save part of their income by putting it in banks which lend the money to business which in turn pays interest and eventually repays the loan.					X					X			

	K	1	2	3	4	5	6	7	8	9	10	11	12
c. Fluctuations in the business cycle result from changes in the circular flow of income.											X		
43. In a market economy prices are affected by changes in supply and demand and price changes affect supply and demand.				*	*	*	X	*		X	X	X	*
a. Other things being equal, the price of a good rises which the good is in short supply as compared to the dmmand for the good and falls when the supply of the good is larger than the demand at the existing price.				*		X	X	X		X		X	X
b. Other things being equal, the lower the price, the greater the demand usually is; the higher the price, the less the demand usually is, except in the case of certain types of goods (for which there is an inelastic demand).					X					X	*		*
c. Other things being equal,in a competitive market, the higher the price for a good, the larger the quantity which will become available for sale. However, there may be quite a time lag, while producers increase production.					*	X				X		X	
d. Adjustment of supply to demand is hampered by factors which decrease mobility of productive resources.										X	X	X	
44. Certain basic economic questions related to allocation are answered or resolved in some fashion by every society, although perhaps in no other way than by tradition. These questions are: What and how much shall be produced in total? What and how much of each good and service shall be produced? How shall these goods and services be produced? How shall these goods and services be distributed among the population?					X					X	X	*	*
45. Economic systems differ as to how questions are resolved about what and how much to produce, how it shall be produced, and who shall get what goods and services.					X	*				X	*	X	*
a. The funaamental difference between economic systems is in how and by whom the basic economic descsions over allocation of resources are made, rather than in who owns the resources.					X	*				X	*	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
b. In a private enterprise system, it is the market which permits buyers and sellers to deal with one another, which translates demand and supply into a price system, and which is chiefly resonsible for the way in which the basic economic questions are worked out. The market serves to determine largely what shall be produced, how much shall be produced, how it shall be produced, and who shall get what part of the production. However, government policies and factors which interfere with perfect competition also affect the allocation of resources.					*					X	X	X	*
c. In command economies most of the basic economic decisions are made by the government.					X					#		X	*
d. In a number of societies neither the government nor a market system has been important in affecting how resources shall be allocated. Such economic systems are based largely upon tradition and reciprocal relationships which have grown up in the past. All societies have some reciprocal relationships which affect exchange to some degree.					X					X		X	X
e. Economic systems are usually mixed, with both public and private ownership and with decisions made both by government and by consumers and businessmen.					X					X	X	X	X
f. Most economic systems are in the process of constant change.					X						X	X	
46. Business firms are organized as individual proprietorships, as partnerships, as corporations, or as producers' or consumers' cooperatives.					X					*	*		
a. As compared with individual enterprises and partnerships, corporations make possible a larger investment in capital goods (with an accompanying mass production and lower costs). They also provide some legal safeguards for owners in case of business failure. However, the owners have less independence.					X					*	*		
b. A few large stockholders can control a corporation with a relatively small investment of money as compared to the (cont.)										X	X		

	K	1	2	3	4	5	6	7	8	9	10	11	12
47. In a recession or depression, productive resources are not used to capacity or are not fully employed. The cost to society is what might have been produced if they had been fully employed. Thus depressions and recessions result in a drop in the Gross National Product and national income.											X		X
a. A depression or recession results in unemployment.											X		
b. A depression or recession results in a rise of business failures and less than full use of existing productive resources.											X		
c. A despession results in a fall in prices.											X		
d. A long drpression usually results in a drop in wages, either in wage rates or in overall wage income because of loss of overtime or cut in hours of work.											X		
e. The alternative cost of permitting productive resources to remain idle is what could have been produced if they had been put to work. That is, the alternative cost is the drop in GNP.											X		
48. Different groups in society are affected differently by depressions and inflation. However, all groups are affected because of the interdependence of society.										*	X		X
a. People on fixed incomes can buy more with their money in periods of low prices and less in periods of inflation.										X	X		
b. People counting on fixed incomes may find that these incomes disappear during depressions, since debtors may not pay debts, insurance companies may fail, and banks may fail.											X		
c. Debtors find it hard to pay back debts in periods of deflation when money is worth more and their income is less.											X		
d. People of all income levels may find themselvss out of work in a serious depression, although unemployment is greatest among unskilled laborers.											X		

	K	1	2	3	4	5	6	7	8	9	10	11	12
e. Poverty and unemployment have both material and psychological effects upon people; these effects may help keep them in continued poverty.										X	*		
f. Even those people who continue to have relatively good incomes are affected by depresssions because of added governmental burdens during hard times.													
49. The fluctuations of different business cycles are similar in some respects and different in others.											X		
a. Business cycles are commonly divided into periods of expansion (consisting of a period of revival and a period of prosperity) and periods of contraction (consisting of a period of crisis and then a period of recession or depression). However, it is not easy to mark off one period from another.											#		
b. Cycles vary in length and degree of fluctuation.											X		
c. Cycles differ in terms of the relative importance of certain factors in causing upturns and downturns.											#		
d. Changes in business activity during a business cycle tend to be cumulative; that is, a small change in one directinn tends to bring further changes in the same direction.											X		
e. Changes in business activitiy during a business cycle tend eventually to be self-reversing; that is, changes in one direction tend to build up pressures which eventually bring a reversal in direction.											X		
f. Fluctuations in business have tended to be around a long-term trend toward higher and higher output.											X		
g. During an upswing in the business cycle, prices tend to increase more rapidly than costs, and during a downswing in the business cycle, prices tend to fall more rapidly than costs.											X		

	K	1	2	3	4	5	6	7	8	9	10	11	12
50. Both internal and external factors are important in causing business fluctuations; however, the most important factor seems to be the level of investment in new capital goods.										*	X		
a. If total spending by consumers, business, government, and foreign countries (aggregate demand) does not equal total production, business will cut back on production										X	#		
b. In mature economies, the motives for saving may differ from the motives for investment. Consequently, business may not invest as much as is saved within the economy. Investment depends upon businessmen's beliefs that new investment will be profitable.											X		
c. The distribution of income pattern affects savings and consumption of consumer goods and so investment.											X		
d. Certain economic variables fluctuate more than others.											X		
51. Government policies can either help reduce or exaggerate fluctuations within the business cycle and can promote or hinder economic growth.										X	X	*	*
a. Government policies can promote or hinder economic growth.													X
b. Some government action to prevent violent fluctuations in business activity requires decisions; such action includes fiscal policy (involving an increase or decrease in public expenditures or changes in tax tates) and monetary policy (such as changes in interest rates, requirements for downpayments on installment buying or margin requirements for buying stock, or open-market operations).										X	X	*	*
c. Built-in stabilizers act automatically without action by the government to shore up purchasing power when business activity declines and to slow down an increase in purchasing power when business activity increases.											X		
d. Taxation policies affect the distribution of income and thrrefore consumer consumption and investment.											*	*	*

	K	1	2	3	4	5	6	7	8	9	10	11	12
e. Government policies toward monopolies and restrictive practices affect business activity both directly by affecting prices and output and indirectly by affecting income distribution.											X	X	
f. Government labor policies affect business activity both directly by affecting minimum wages and hours of work or child and women labor and indirectly by affecting the strength of labor unions. These policies, by affecting income distribution, affect business activity.											X	X	
g. Government price controls and allocation control and consumer rationing affect business activity. They may be used to hold down inflation and allocate productive resources to essential industries during price inflation or wartime.											X		
h. Government affects business growth and fluctuations by protecting private property and contracts, by providing a money system, by protecting inventions, by providing systems of public transportation, and by research and dissemination of information.											X		
i. Governments may loan money directly to firms or give them subsidies.										#	#		
52. Purchasing costly items on credit raises the cost to the consumer and frequently proves more profitable than cash sales to the seller.										X			
53. People buy insurance to reduce the risk to themselves; the risks are spread among many people.										X			
54. An individual may learn a variety of occupational skills and may earn his living in many different ways. His choice of vacation may be influenced by numerous factors, including the groups to which he belongs.				X		*							
a. A man's job opportunities are limited by his training and skills.						X							

	K	1	2	3	4	5	6	7	8	9	10	11	12
55. Every place has three types of location: position, situation, and site.	*	*	*	X	X	X			X				
a. Things can be located at specific points on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.	*	*	*	X	X	X				#		#	#
b. Places can be located in terms of their situation; situation describes a phenomenon in areal relationship with other phenomina with which it is associated, including distance and direction from such phenomena.	*	*	*	X	X	X	#			#		#	#
c. Places can be located in terms of site which relates a phenomenon to the detailed physical setting of the area it occupies.		*	*	X	X	X	*			*		*	*
56. Phenomena are distributed unequally over the earth's surface, resulting in great diversity or variability from one place to another. No two places are exactly alike.	X	X	X		*	X				X		*	*
a. No two places on earth are exactly alike. Each place looks different from other places.	X												
b. Unevenly-distributed phenomena form distinctive patterns on the map.	X				X	X				X		X	X
c. Population is distributed unevenly over the earth's surface; many of the land areas are thinly populated.					X	X				X		X	X
57. Temperature is affected by such factors as (a) distance from the equator, (b) elevation, (c) distance from warm water bodies, (d) prevailing winds, (e) air pressure systems, (f) ocean currents and (g) physical features which block winds from certain directions.	*	*	*	*	*	*	*			X		X	X
a. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.		X	X	X	X	X							X
b. Temperature is affected in part by elevation; air is cooler at higher elevations than at lower elevations if latitude		X	X	X	X	X							

	K	1	2	3	4	5	6	7	8	9	10	11	12
and distance from the sea are the same.													
c. Places in the interior of continents tend to have greater extremes of temperature than places along the coast.				*	X	X	X					X	
58. Precipitation is affected by factors such as distance from bodies of warm water, wind direction, temperature, ocean currents, and physical features which force winds to rise.				X	X	X	X			X		X	X
a. Warm air can hold more water than cool air; therefore warm air picks up moisture and the cooling of air leads to precipitation.						X						#	#
b. Winds which have been warmed and have picked up moisture crossing large bodies of warm water tend to cool as they rise over mountains and so drop their water on the side of the mountain from which they come.						X						#	
c. As winds descend into valleys from mountain ridges, they are warmed and tend to pick up moisture.						X							
d. Winds which cross cold water currents are cooled and will pick up moisture rather than dropping it as they cross land areas which are warmer than the water.						X							#
59. Vegetation is affected by temperature, precipitation, and soil.		X	*	X	X	X	X			X		*	X
a. Trees need more water than long grasses in order to grow; long grasses need more water than shorter grasses.						X							
b. Grass will grow in some areas which are too cold for trees to grow.		X				X						X	
c. Deserts have very little rain, and precipitation is very irregular from one year to another.			*			X				#			#
d. Major climatic regions coincide approximately with major vegetation zones because vegetation is related to climatic conditions.						X	#			#		#	#
e. Vegetation and what can be grown is affected in part by soil.		#				X						#	#

	K	1	2	3	4	5	6	7	8	9	10	11	12
f. The amount of moisture needed for vegetation and crops is affected by the time of year when the area receives most of its moisture and by the temperature of an area.						X				X		*	*
60. The degree to which people are made uncomfortable by hot or cold temperatures is affected by the amount of humidity and by wind velocity.						X							
61. Soil in a particular place is affected by the type of basic rock in the region; the climate; vegetation; erosion; wind, glaciers, and rivers which move soil; as well as by how man treats the soils.		*			X	X						X	X
a. Erosion of soil results from water and wind; it is more likely in areas where grass and trees have been removed.						X				#			
b. Soil in a particular place is affected in part by how man treats the soil.					#	X				#		#	#
c. Soil in a particular place is affected in part by rivers which move soil and deposit it in an area.						X						#	
d. Vegetation affects the development of soils.		X			#	X	#			#		#	#
62. Water is evaporated from the ocean, is carried in clouds by the wind, is dropped on land areas through precipitation, and is then evaporated once more or runs off by way of rivers and underground streams to the oceans.						X						X	
a. Rivers flow from higher elevations to lower elevations.		#				X						X	
b. If lakes have no outlets, they are likely to develop into salt-water lakes or dry up into salt beds.						X							
c. Mountains frequently provide sources of water for rivers and so for irrigation.		#				X						#	
63. The rotation and inclination of the earth and the revolution of the earth around the sun have a number of effects upon climate.	*	*				X						*	

	K	1	2	3	4	5	6	7	8	9	10	11	12
a. The rotation of the earth produces day and night, while the inclination of the earth and its revolution around the sun results in seasons and differences in temperature on the earth's surface.	X	X				X						X	
b. The direction of prevailing winds is caused both directly and indirectly by the rotation of the earth and its revolution around the sun.						X							
c. The ocean currents are caused largely by the direction of prevailing winds and the rotation of the earth.						X							
64. Both man and nature change the character of the earth.	*	*	*	X	X	X	#			X		X	X
a. Man cuts forests, causes erosion, changes the course of rivers, transports phenomena, removes the fertility of the soil by agricultural practices or builds up the fertility by other practices, builds dams, wells, and canals for irrigation, etc.		*	*			*				*		X	*
b. Nature changes the face of the earth through physical and biotic processes.	X				X	X						X	X
65. Man uses his physical environment in terms of his cultural values, perceptions and level of technology. (Or: People living in the same physical environment or in the same type of physical environment use it differently, depending upon their cultural values, perceptions, and level of technology.)		X	X	X	X	X	X			X	X	X	X
a. Societies inhabiting similar areas tend to have similar environmental problems. However, the solution to those problems will depend upon the cultural perceptions of the various peoples, as well as upon the environmental situation.										X			
b. Man changes the character of the earth.		*	*	X	X	X				X		*	X
c. Climate may set up limitations upon man's activities given a specific level of technology, but man has learned						X				*		X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
to overcome many of the earlier limitations.													
d. The topography of a region may present limitations, given a specific level of technology, but man has learned to overcome many of these limitations.					X	X	X			X		X	X
e. Types of agriculture in a region depend upon man's cultural values, perceptions, and technology, as well as upon climate, soils, and topography.						X	X			X		X	X
f. The significance of location depends upon clutural developments both within and outside a country or region.						X	X			X	X	X	X
g. Natural resources are of little value until man acquires the skill necessary for their utilization or sees a reason for using them.						X							X
h. Whether or not a country's size provides more advantages or disadvantages depends upon the problems inhabitants face at a particular time, upon their goals, and upon their level of technology.						X						X	X
i. Political boundaries are man-made and frequently do not follow any natural physical boundaries.						X				X			
j. Population distribution reflects man's values and his technology as well as physical features of an area (such as climate, topography, and resources of an area).						*				*		X	X
k. What a country produces will depend upon demand (or how much of the product people will buy) as well as upon available resources, labor, and capital.						X							
66. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to markets, peopls's skills, etc.	X	X		*	X	X	X			X	X	X	X
a. Man needs drinking water to survive; he also needs water for many of his economic activities such as growing crops and manufacturing.				X		#							

	K	1	2	3	4	5	6	7	8	9	10	11	12
b. Differing crops need differing amounts of rainfall and differing temperatures and number of frostfree days in order to grow; they need water and dryness at different times during their period of growth.		X			X	X				X		X	
c. Grain crops are raised more easily on relatively flat lands than in hills and mountains.						X							
d. Some types of crops require much more human labor than other types do.		X			X							#	
e. Forests can be used to obtain lumber and other timber products such as paper, turpentine, nuts, etc., depending upon the kinds of trees in the forest.						X						#	
f. Location of production is influenced by costs of land needed for a factory or business.						X							
g. Factories must have some form of power to run machinery.						X						*	*
h. A place needs cheap and rapid transportation in order to carry on much trade with other places or even to carry on the normal business activities of a city.					*	X	X				X	X	X
i. Costs which must be covered in sales prices if a company is to survive include assembly costs of ingredients, cost of ingredients and labor, and cost of transporting goods to markets.					*	X							
j. Industry is dependent upon iron and steel for machines even when the factory does not use steel as a resource in making its products.						X							
67. Certain physical features of a site are more desirable than others for the development of a port city.			X			X							
68. The value of land tends to be related to a number of factors such as moisture, soil, temperature, and growing season, population density, and transportation facilities.						X							
69. In spite of the earth's density, there is an interrelationship			*	*	*	*	*		X	*	*	*	*

	K	1	2	3	4	5	6	7	8	9	10	11	12
of places in the world.													
a. All of the places of the earth are tied together by forces of man and nature.			*	*	*	*	*		*	*	*	* X	*
b. The world is a community of interdependent countries (or-- The people of the world are interdependent).			X	*	*	X	*		X	X	*	X	X
70. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.						X				X		X	*
a. Every area on earth contains a combination of phenomena which share the space of places and regions. Some of these phenomena are closely interrelated, while others merely happen to be there and may have no causal dependence upon the others. Those phenomena which are tied together causally result in places and regions of distinctive character.						X				#		#	X
b. Regions are delimited by some degree of homogeneity of phenomena which sets it apart from other regions.						#				#		X	#
71. Changes in the birth and death rates and in the ratio between sexes can have important effects upon a society.										*		X	
a. Changes in the birth and death rates may have important effects on a society.										X		*	
b. A country in which the proportion of the population in the age group from 18 to 30 increases, is likely to show an increasing rate of population growth, other factors remaining the same.												X	
c. Industrialization and scientific developments which accompany it, usually bring an eventual drop in the birth rate; however, the death rate usually drops first resulting in an initial increase in the rate of population growth.												X	
72. Overpopulation represents a lack of balance between available													

	K	1	2	3	4	5	6	7	8	9	10	11	12
income and population. The concept is relative and is defined by the value patterns and expectations of a particular culture. The starvation of a large proportion of the society amounts to absolute overpopulation.										X		X	
73. The degree of horizontal mobility within a society (including shifts of population from rural to urban areas) can have important effects upon society.												X	
74. War is a major world problem.					*		*			*	*	*	X
a. War is a complex social process.													X
b. Wars have a serious impact upon both soldiers and civilians.					*		X				*	*	*
c. War seems to be the result of multiple, interrelated causes.							X			X	X	X	X
75. The international system may be looked at as a series of dynamic power relationships.					*	*	*		X	X	*	X	X
a. There are many sources or bases of national power in dealing with other nations.							*			X	X	X	X
b. Nations may pool their power behind common goals in varying systems of alliances and combinations.					*	X				X	X	X	#
c. In the international system, inequalities of power only invite the use of some form of coercion.												X	X
d. Imperialism and particularly attitudes of superiority by members of the imperialist country give rise to feelings of frustration; when combined with the diffusion of nationalistic ideas from other countries, it helps give rise to feelings of nationalism.										X		X	X
e. National power may be brought to bear on other nations through many channels and mechanisms; choice among them depends on the nature of the goal, its importance, the effectiveness of the means, its "acceptability," etc.												X	X
f. The international system has several means and mechanisms for resolving conflict but none has been successful con-													X

	K	1	2	3	4	5	6	7	8	9	10	11	12
sistently in preserving peace.													
77. There are no easy solutions to social problems; since most social problems arise from multiple causes, simple solutions are unlikely to do away with all of the causes. Moreover, the solution to one problem may give rise to other problems or unanticipated consequences.							#	#	X	#	X	#	*
a. Each solution to the problem of war is based upon different assumptions about the causes of war, the probability of total war, estimates of its destructiveness, and value choices.													X
b. The policy of peace through power has been criticized by diverse groups who advocate very different solutions to the problem of war.													X
c. The means used may make it difficult to achieve the stated ends or goals.												X	X
78. Social scientists are interested in human behavior.								X					
79. Social scientists set up classifications to suit their purposes; the use of different criteria result in different classifications.											X	X	
80. Scientists attempt to explain behavior by developing and testing theories.								X	#			*	#
81. Social scientists are limited in the kinds of experiments which they can conduct.								X	#				
82. It is impossible to understand a piece of writing without understanding the author's frame of reference and use of vocabulary.							X			X	X	X	#
83. Economists have worked out a number of statistical measures to help them analyze and compare living levels and economic production.										X	#		*
a. Index numbers make it easier to compare prices, etc. over a period of years.										X	#		
b. Economic growth is difficult to measure exactly, but several													

	K	1	2	3	4	5	6	7	8	9	10	11	12
statistical measures provide workable estimates.										*	*		X
84. Economic models simplify the economy to make it easier to understand.					#					X	#		
85. Geographers seek information about areas on the earth's surface which enables them to compare, synthesize, and generalize about these areas.						X				#		#	#
a. Geographers ask different questions about places, depending upon their purposes at the moment.						X							
b. Maps make it possible to discern patterns and relationships among a vast amount of data.						X	X			#	#	#	#
c. All maps contain distortions of one kind or another; each kind of map projection has both advantages and disadvantages, depending upon one's purpose in using a map.						X						X	
86. Archaeologists use a variety of techniques to date remains and try to figure out how early men lived.						X	#						

SEQUENTIAL DEVELOPMENT OF CONCEPTS

GEOGRAPHY	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Globalism	X	X			X	X						X	X
2. Diversity-variability	X	X	X	X	X	X	X			X		X	X
a. Pattern				X	X	X				X		X	X
e.g.													
Population		X			X	X	X			X		X	X
Density		X			X	X	X			X		X	X
Dispersion		X			X	X				X		X	X
b. Areal Differentiation	X	X	X	X	X	X	X			X		X	X
c. Regionalism						X				X		X	X
3. Location	X	X	X	X	X	X	X			X	X	X	X
a. Position	X	X	X	X	X	X	X		X	X		X	X
b. Site (many site concepts listed in different courses. In general, they can be arranged under the following general types:)													
1) Landforms	X	X	X	X	X	X	X			X		X	X
2) Water	X	X	X	X	X	X	X			X		X	X
3) Climate	X	X	X	X	X	X	X			X		X	X
4) Soil		X			X	X	X			X		X	X
5) Natural vegetation		X	X	X	X	X	X			X		X	X
6) Minerals					X	X	X			X		X	X
7) Man-made features		X	X	X	X	X	X			X		X	X
c. Situation		X	X	X	X	X	X		X	X		X	X
1) Distance and direction		X	X	X	X	X	X			X	X	X	X
2) Functional relationships		X	X	X	X	X	X			X		X	X
4. Interrelatedness	X	X	X	X	X	X	X	X	X	X	X	X	X
a. Areal association				X	X	X				X		X	X
b. Spatial interaction	X	X	X	X	X	X	X		X	X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
1) Circulation	X	X	X	X	X	X	X		X	X	X	X	X
a) Trade	X	X	X	X	X	X	X		X	X	X	X	X
b) Migration	X			X		X	X	X		X	X	X	X
c) Diffusion		X		X	X	X	X			X	X	X	X
c. Interdepedependence	X	X	X	X	X	X	X		X	X	X	X	X
5. Change	X	X	X	X	X	X	X			X		X	X
a. Man-made		X	X	X	X	X	X			X		X	X
b. Physical and biotic	X	X	X	X	X	X	X			X		X	X
6. Cultural Use of Environment (Many concepts underneath)	X	X	X	X	X	X	X			X	X	X	X
ECONOMICS													
1. Economic wants and needs					X					X	X	X	X
2. Production of economic goods and services		X	X	X	X	X	X			X	X	X	X
3. Productive resources		X	X	X	X	X	X			X	X	X	X
a. Land or natural resources		X	X	X	X	X	X			X	X	X	X
b. Labor		X	X	X	X	X	X			X	X	X	X
c. Capital goods				X	X	X	X			X	X	X	X
d. Mobility										X	X	X	X
4. Scarcity (economic)					X					X	X	X	X
a. Alternative costs										X	X	X	X
5. Exchange		X	X	X	X	X	X		X	X	X	X	X
a. Trade	X	X	X	X	X	X	X		X	X	X	X	X
b. Money					X		X			X	X		
c. Barter					X	X	X			X			
6. Circular flow of income					X					X	X		X
a. Firm (types listed)					X					X	X	X	X
b. Consumer or householder					X					X	X	X	X
c. Financial institutions					X					X	X	X	X
d. Government (economic role)					X					X	X	X	X
7. Living levels					X	X				X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
a. Standard of living										X		X	X
b. Affluence										X	X		
c. Poverty										X	X	X	X
1) Underdeveloped country										X		X	X
8. Employment and unemployment					X					X	X	X	X
a. Structural unemployment										X			
b. Cyclical unemployment											X		
9. Distribution					X					X	X	X	X
a. Money income					X					X	X		
b. Real income					X					X	X	X	X
c. Wages					X					X	X		
d. Interest					X					X			
e. Rent										X			
f. Profits					X					X		X	
10. Economic goals					X					X	X	X	X
a. Economic growth										X	X	X	X
b. Economic stability and security										X	X		
c. Economic justice										X	X	X	X
11. Incentives (monetary and non-monetary)					X					X	X	X	X
12. Economic output					X					X	X	X	X
a. Gross National Product										X	X	X	X
b. Factors affecting		X	X	X	X	X	X		X	X	X	X	X
1) Technology					X	X	X			X	X	X	X
2) Investment					X					X	X	X	X
a) Capital goods and capital formation (see above)													
b) Savings					X					X	X	X	X
c) Productivity				X	X					X	X	X	X
3) Organizational structure					X					X	X	X	X
a) Efficiency					X					X	X	X	X
b) Division of labor		X	X	X	X	X				X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
(1) Mass production					X					X	X	X	X
(2) Specialization		X	X	X	X	X				X	X	X	X
c) Diversification						X				X	X	X	X
d) Law of diminishing returns										X			
13. Business fluctuations and business cycles										X	X		
14. Allocation system or economic system					X		X			X	X	X	X
a. Market system in private enterprise economy					X					X	X	X	X
1) Prices				X	X	X	X			X	X	X	X
a) Supply				X	X		X			X	X	X	X
b) Demand				X	X		X			X	X	X	X
(1) elasticity										X			
(2) disposable income										X			
(3) aggregate demand										X	X		
2) Competition					X	X				X	X	X	X
a) Costs					X	X				X	X	X	X
(1) Fixed costs										X	X		
b) Profits					X					X	X	X	X
c) Price competition					X	X				X	X	X	X
d) Advertising					X					X			
e) Product differentiation										X			
f) Third party costs										X			
b. Command system					X					X		X	X
1) Communism												X	
2) Socialism												X	
c. Traditional economic system					X					X		X	X
d. Mixed economy					X					X	X	X	X
e. Change					X					X	X	X	X
15. Interdependence	X	X	X	X	X	X	X		X	X	X	X	X

SOCIOLOGY AND ANTHROPOLOGY	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Human behavior													
2. Biological man		X	X	X	X		X	X	X	X	X	X	X
a. Species (human beings)		X	X	X	X		X	X					X
b. Biological needs								X					
c. Reflex		X	X	X	X		X	X				X	
d. Instinct								X					
e. Brain								X					
f. Maturation or growth								X					
g. Race								X					
3. Culture		X	X	X	X	X	X	X	X	X	X	X	X
a. Norms	X	X	X	X	X	X	X	X	X	X	X	X	X
b. Values	X	X	X	X	X	X	X	X	X	X	X	X	X
c. Attitudes	X	X	X	X	X	X	X	X	X	X	X	X	X
1) Prejudice		X	X	X	X	X	X	X	X	X	X	X	X
2) Racism							X	X	X	X	X	X	X
d. Cultural perceptions							X	X	X	X	X	X	X
1) Frame of reference						X	X			X	X	X	X
e. Stereotypes							X			X	X	X	X
f. Interests and goals							X	X		X	X	X	X
g. Ideology					X		X	X	X	X	X	X	X
h. Learned behavior									X	X	X	X	X
i. Integrated whole		X	X	X	X		X	X	X	X	X	X	X
j. Diversity					X		X			X	X	X	X
1) Uniqueness	X	X	X	X	X	X	X	X	X	X	X	X	X
2) Sub-culture		X	X	X	X		X			X		X	X
a) Contra culture							X	X			X		
k. Universals (including psychic unity of mankind)							X				X		
l. Change		X	X	X	X	X	X	X		X		X	X
1) Diffusion		X	X	X	X	X	X	X	X	X	X	X	X
		X		X	X	X	X			X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
2) Internal innovation or invention		X	X	X	X	X	X			X	X	X	X
3) Revolution					X		X			X	X	X	X
m. Persistence		X	X	X	X	X	X			X	X	X	X
4. Processes													
a. Interaction and social contact	X	X	X	X	X	X	X	X	X	X	X	X	X
b. Communication (speech)				X			X	X	X			X	
1) Language and symbols				X			X	X				X	
c. Socialization		X	X	X	X		X	X	X	X	X	X	X
1) Expectations		X	X	X	X		X	X	X			X	X
2) Role perceptions		X	X	X	X		X	X	X			X	X
3) Role conflict				X			X	X	X	X	X	X	X
4) Measured intelligence								X					X
5) Identification								X	X	X	X		
d. Competition					X	X		X		X	X	X	X
e. Conflict		X	X	X	X		X	X	X	X	X	X	X
1) Power							X	X	X	X	X	X	X
2) Class								X		X	X	X	
3) Culture							X	X		X	X	X	X
4) Aggression							X	X	X	X	X	X	X
5) Scapegoating								X					X
f. Frustration								X		X			
1) Perceived deprivation							X	X		X	X	X	X
g. Agglommoration of power							X	X	X	X	X	X	X
h. Accommodation				X			X		X	X	X	X	X
1) Domination-submission								X	X			X	X
2) Compromise									X	X	X	X	X
i. Rationalization (Psychological)							X	X					X
j. Mechanisms of social control		X	X	X	X		X	X	X	X	X	X	X
5. Social structure		X	X	X	X		X	X	X	X	X	X	X
a. Role							X	X	X	X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
b. Role structure							X	X	X	X	X	X	X
c. Institutions							X	X	X	X	X	X	X
1) Family		X	X	X	X		X	X	X	X		X	X
a) Nuclear		X	X	X	X		X	X		X		X	X
b) Extended		X	X	X	X		X	X		X		X	X
2) Education		X	X	X	X		X	X		X	X	X	X
3) Religious		X	X	X	X		X	X		X	X	X	X
4) Political				X	X	X	X		X	X	X	X	X
5) Economic					X		X			X	X	X	X
d. Formal structure								X	X	X	X	X	X
1) Bureaucracy								X	X			X	
e. Informal structure								X	X				
f. Group morale and cohesion				X			X	X	X	X	X	X	X
g. Leadership				X			X		X	X	X	X	X
h. Social function		X	X	X	X		X	X	X	X	X	X	X
i. Stratification or class structure					X		X	X	X	X	X	X	X
1) Status		X	X				X	X	X	X	X	X	X
a) Class					X		X	X		X	X	X	X
b) Caste					X		X					X	
2) Vertical mobility					X		X	X			X	X	X
j. Power							X	X	X	X	X	X	X
h. System, social.								X		X	X	X	X
6. Actors involved													
a. Self							X	X				X	X
b. Personality							X	X				X	X
1) Apathy							X	X					X
2) Authoritarian personality								X					X
3) Modal												X	X
c. Group				X			X	X	X	X	X	X	X
1) Primary and secondary group				X				X					X

	K	1	2	3	4	5	6	7	8	9	10	11	12
2) Integrated group								X	X		X	X	X
a) Reference group				X				X					X
b) Voluntary group								X	X	X	X	X	X
(1) Social movement				X			X	X			X	X	X
c) Peer group								X					
d. Crowd								X				X	X
e. Society					X		X	X		X	X	X	X
f. Community				X									
g. Nationality or ethnic group						X	X	X	X	X	X	X	X
7. Population (See above.)			X	X	X	X	X			X		X	X
a. Growth										X		X	X
POLITICAL SCIENCE													
8. Political Culture									X	X	X	X	X
a. Norms (Political)									X	X	X	X	X
b. Values (See above)													
c. Attitudes (See above)													
d. Interests and goals				X	X		X		X	X	X	X	X
e. Ideology							X		X	X	X	X	X
1) Freedom							X		X	X	X	X	X
a) Civil rights								X	X	X			X
b) Civil liberties									X	X	X	X	X
2) Democracy							X		X	X	X	X	X
3) Totalitarianism									X	X		X	X
f. Learned behavior (political)							X	X	X	X	X	X	X
g. Diversity (political)				X	X		X		X	X	X	X	X
9. Socialization (political)									X	X	X	X	X
10. Communication (political)							X		X	X	X	X	X
a. Symbols									X		X	X	
b. Images									X	X		X	X
c. Persuasion							X		X	X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
11. Conflict (see above)													
a. Political							X	X	X	X	X	X	X
b. Power							X	X	X	X	X	X	X
c. International									X	X		X	X
1) Imperialism										X		X	X
2) War							X		X	X		X	X
d. Revolution					X		X		X	X	X	X	X
12. Power							X	X	X	X	X	X	X
a. Influence									X	X	X		X
b. Agglomeration							X	X	X	X	X	X	X
1) Voluntary Organizations								X	X	X	X	X	X
a) Interest group							X	X	X	X	X	X	X
b) Political party									X	X	X	X	X
c. Coalitions									X	X	X	X	X
d. Alliance							X			X		X	X
e. National									X	X		X	X
f. Shared Power, Degree of													
1) Democracy							X	X	X	X	X	X	X
2) Oligarchy										X		X	X
3) Autocracy									X	X		X	X
4) Totalitarianism										X		X	
13. Leadership				X	X		X		X	X	X	X	X
a. Recruitment									X	X	X	X	X
b. Functions				X			X		X	X	X	X	X
c. Style									X				
14. Group morale and cohesion				X			X		X	X	X	X	X
a. Nationalism										X	X	X	X
15. Institutions (political)							X		X	X	X	X	X
a. Informal:													
1) Norms									X	X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
2) Access to decision-makers									X	X	X	X	X
b. Formal:													
1) Structure							X		X	X	X	X	X
2) Constitution							X		X	X	X	X	X
3) Specific political institutions:													
a) Federalism							X		X	X		X	X
b) Unitary government									X	X		X	X
c) Separation of powers									X	X	X	X	X
(1) Executive									X	X	X	X	X
(2) Legislative									X	X	X	X	X
(3) Judicial									X		X	X	X
d) Parliamentary government									X	X		X	X
16. Decision-making (political)									X	X	X	X	X
17. Accommodation or Conflict-resolution							X	X	X	X	X	X	X
a. Compromise									X	X	X	X	X
18. Public policy or law							X	X	X	X	X	X	X
a. Allocation (of scarce or conflicting goals)							X		X	X	X	X	X
b. Social control mechanisms				X			X	X	X			X	X
1) Sanctions				X			X	X	X			X	X
19. System:													
a. Political							X		X	X	X	X	X
1) Legitimacy									X	X	X		X
b. International									X	X		X	X
1) Foreign policy									X	X	X	X	X
2) Diplomacy												X	X
3) International law													X
4) International organization												X	X
c. Interdependence (political)									X	X	X	X	X
1) Integrated system									X				X
2) International									X	X	X	X	X

SEQUENTIAL DEVELOPMENT OF SKILLS

	Grade Level												
	K	1	2	3	4	5	6	7	8	9	10	11	12
I. THE STUDENT ATTACKS PROBLEMS RELATED TO THE SOCIAL SCIENCES IN A RATIONAL MANNER WHEN HE:													
1. Is alert to incongruities, recognizes problems, and is concerned about them.							X		X	X	X		X
2. Selects problems for study according to specific criteria.									X				
3. Defines problems by isolating the basic issue, defining terms, identifying assumptions and values involved, determining sub-problems which must be investigated, and identifies factual questions which need to be answered in debates over courses of action involving value conflicts.							*	*	X	X	X	*	X
(Abbreviated form of skill: Identifies and defines problems.)												X	
a. Identifies basic issues									X	X			X
b. Defines terms in order to avoid confusion.								X	X	X			X
c. Identifies assumptions and values involved.									X	X			X
1) Identifies value-conflicts.							X			X	X		X
d. Determines sub-problems or questions which must be investigated.									X	X	X		

X Listed as specific objective
Taught but not listed as objective

* Sub-skills related to this skill taught

	K	1	2	3	4	5	6	7	8	9	10	11	12
e. Identifies factual questions which need to be answered in debates over courses of action involving value conflicts.										X	X		X
4. Considers the relevance of each of the social science disciplines, and uses the types of questions asked and the analytical concepts used in the relevant disciplines to help him analyze the problem.												X	X
5. Considers hypotheses and/or alternative courses of action.		*	*	*	*	*	*	*	X	X	X	X	X
a. Sets up hypotheses.		X	X	X	X	X	X	X	X	X	X	X	X
b. Clarifies and refines hypotheses.									X	X			X
c. Deduces possible consequences (if-then statements) to guide his collection of data.								#	X	X		X	X
d. Considers possible consequences of alternative courses of action.									X	X	X	X	X
1) Having determined the causes of a social problem, considers alternative courses of action and hypothesizes about probable consequences											X		X
6. Sets up simple experiments or some other appropriate technique for testing his hypotheses.						*		*	*	X		*	*
a. Sets up simple experiments.								X					X
b. Figures out (or sets up) ways of testing hypotheses.						X		X	X	X		X	X
c. Uses scatter diagrams to test hypotheses.						X							X
II. THE STUDENT WHO IS SKILLED IN LOCATING INFORMATION IN THE SOCIAL SCIENCES:													
1. Uses the aids in a book.			*	*	*	*	*		*	*		*	

	K	1	2	3	4	5	6	7	8	9	10	11	12
a. Uses the table of contents in a book to locate information.			X	X	X	X				X			
b. Uses book index to locate information.				X	X	X	X		X			X	
2. Uses library files to locate information.						*				*			
a. Uses the card catalog in the library.						X				X			
b. Uses the vertical file in the library.						X							
3. Knows what index to use for a particular purpose and uses it.								*	*	*	*	*	*
a. Uses Reader's Guide to Periodical Literature.								X	X	X	X	X	X
b. Uses Book Review Digest.												#	#
4. Uses appropriate reference books and sources to locate different types of information.				*	*	X	*		*	X	*	X	*
a. Uses encyclopedias.				X	X	X	X					X	
1) Uses Dictionary of American Biography.											X		
b. Uses references to locate information about living people.												X	X
c. Uses yearbooks and specialized statistical references to locate information.						*			*	X		*	*
1) Uses almanacs.						X						X	
2) Uses Statesman's Yearbook.												X	
3) Uses U.S. Government Manual.									X				
4) Uses state legislative manual.									X				
5) Uses Statistical Abstract.									X				X

	K	1	2	3	4	5	6	7	8	9	10	11	12
6) Uses census volumes.								#	X				
7) Uses *Historical Statistics of the United States*.											X		X
8) Uses *Survey of Current Business*.													X
9) Uses *Economic Report of the President*.													X
d. Uses dictionary effectively.				X	*			X					
1) Alphabetizes words in order to locate definitions.				X									
2) Uses guide words at top of pages.				X				X					
3) Uses dictionary to learn how to pronounce words.					X								
4) Uses a dictionary to learn the meaning of words.					X								
(a) Can choose the correct meaning of a word by relating the meanings to the context in which he found the word in a book.					X								
5. Skims to locate information.						X	X		X			X	
a. Picks out key words to use in skimming for information.									X				
b. Locates information quickly in newspapers by using headlines and first paragraphs of articles.									#				
6. Locates information on local community by using telephone directory.					X				X				
7. Uses different types of atlases.						X				#	X	#	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
a. Uses general atlases.						X				#		#	X
b. Uses historical atlases of various kinds.											X		
8. Knows where to look for first-hand accounts.							X				#	#	
III. THE STUDENT WHO IS SKILLED IN GATHERING INFORMATION IN THE SOCIAL STUDIES:													
1. Uses sub-questions or deduced consequences of hypotheses to guide him in collecting relevant data.							*			X			X
a. Uses sub-questions to guide the collection of relevant data.							X						
2. Reads with understanding.				*	*		*	*	*	*	*	*	*
a. Reads for the main idea or ideas.				X			X		X	X	X	X	X
1) Uses introductions, headings, and summaries.				X					X				
2) Uses first sentences in paragraphs.									X				
3) Uses signal words to help pick out main ideas.									X				
b. Reads for details.				*	X		X		X	X	X	X	X
1) Reads for details which support or contradict generalizations and main ideas.				X			X		X				
2) Identifies words and phrases which are intended to persuade.									X				X
3) Identifies assumptions, stated and unstated.								X	X	X	X	X	X
4) Reads for comparisons. (See also IV 3b.)									X				
c. Reads to find answers to questions.							X	X			X		
d. Reads to organize what he reads.							X		X				
1) Works out structure of material read.									X				

	K	1	2	3	4	5	6	7	8	9	10	11	12
2) Relates ideas to ideas acquired from other sources and organizes own structure for topic. (See also IV 3b below.)									X			X	
e. Adjusts reading rate to:													
1) Purpose in reading.							X	X	X			X	X
2) Type of material being read.								X	X				X
f. Reads rapidly for main ideas.							X				X		
g. Skims to obtain an overview of a period.											X		
h. Reads social studies terms with understanding.(or Interprets social studies terms.)								X	X				
1) Increases his understanding of social studies vocabulary by studying the context in which words are used.								X					
3. Takes effective notes on his reading.						X	X		X		X		X
a. Takes notes on reading, using note cards.													X
4. Interprets tables, graphs, and charts.			X	X	X	X		X	X	X	X	X	
a. Interprets different kinds of graphs.			*	*	*	*		*	*	*		*	
1) Interprets pictographs.			X		X	X							
2) Interprets bar graphs.					X	X							
3) Interprets pie or circle graphs.					X	X							
4) Interprets line graphs.						X							
5) Studies the title, headings, and legend on graphs.								X					
6) Looks for graphic devices which may be misleading.												X	
7) Draws inferences from graphs.				X	X				X	X	X	X	
b. Interprets charts.					X	*		X					
1) Notes relationships shown on charts.								X					
2) Interprets flow charts or models					X						#		#

	K	1	2	3	4	5	6	7	8	9	10	11	12
3) Gains information by studying diagrams.					X	X			#	#	#	#	#
4) Draws inferences from charts.				X	X				X	X	X	X	
c. Interprets tables.				*	X			X	*	*		*	#
1) Draws inferences from tables.				X	X				X	X	X	X	#
5. Gains information by studying pictures, cartoons, films, models, realia, and things which he sees around him.	*	*	*	*	*	*				X			
a. Gains information by studying pictures.	X	X	X	X	X	X	X						
1) Draws inferences from pictures.				X		X	X						
b. Gains information by studying films.	X	X	X			X							
c. Gains information by studying artifacts or realia.							X						
d. Gains information by making, studying, and using models.	X	X		X	X	X	X			*	*		
1) Uses models to make sense out of complex data and to help him analyze data.										X	X		
e. Interprets cartoons.									#		X	X	
f. Gains information by observing the world around him.	X	X	X			X							
6. Gains information in the process of developing murals.							X						
7. Gains information through interviews.				X					X	X	X		
8. Gains information by making a survey.						X		*	*				
a. Uses simple sampling techniques.								#	X				
9. Increases his accuracy of information through the use of various devices designed to promote reliability, such as:													
a. Observation schedules.								X					
b. The use of questionnaires.						X		X	X	X	X		

	K	1	2	3	4	5	6	7	8	9	10	11	12
c. Scales and indices.										X	X		
d. Content analysis.								X	X				
10. Gains information by conducting or observing simple experiments.						X		#					#
11. Gains information by listening.	X	X	X	X	X	X	X	X	X	X	*	*	*
a. Listens to structured speeches for main ideas, supporting details, and to evaluate what he hears.							*	*	X	X		*	
1) Identifies the main idea of an oral presentation.							X	X				X	
2) Listens for details.							X	X				X	
b. Listens to discussion for main ideas, supporting details, and to evaluate what he hears.				X			X						
c. Takes effective notes on oral activities, including discussions, oral reports, and informal talks or lectures.							X	X	*	X	*		*
1) Adjusts type of note-taking to type of oral presentation.									X	X			X
2) Takes effective notes on lectures											X		
3) Takes effective notes on discussions.											X		
12. Uses a variety of sources of information.										X	#	#	#
IV. THE STUDENT WHO IS SKILLED IN EVALUATING INFORMATION AND SOURCES OF INFORMATION:													
1. Identifies the main idea of an oral, written, or visual presentation.							X	X					X
(See also III 11a above.)							X	X				X	

	K	1	2	3	4	5	6	7	8	9	10	11	12
2. Distinguishes between relevant and irrelevant information and notes whether that which is relevant supports or contradicts the idea to which it is related.							*		X	X		X	X
a. Distinguishes between relevant and irrelevant information.							X						
b. Detects persuasion devices.									X	X	X	X	X
1) Detects persuasion devices in cartoons.									X				
3. Checks on the accuracy of information in order to decide how much faith to put in the source.			*	X	*	X	X	*	*		X	X	X
a. Checks facts against his own background of information and collects additional information when he needs it to check the facts.						X	X					X	X
b. Checks on the bias and competency of witnesses, authors, and other producers of materials.			X	X	X	X	X	X	X	*	X	X	X
1) Checks on the bias of authors (or on values which he holds) which might affect his statements.										X			
2) Notes whether an author would be hurt by an opposite report, what his purpose was in preparing his account, what attitudes he expresses, what connections he may have which might affect his attitudes.							X						X
3) Evaluates sources of information in terms of competency of authors.				*		X							*
a) Notes opportunities of witness to observe place or event, how closely				X			#				#	#	#

	K	1	2	3	4	5	6	7	8	9	10	11	12
he did observe, his training and qualifications for observing or studying places or events, the time elapsing between observation and the writing of the account.													
(1) Notes opportunities of witness to observe events.													X
b) Notes author's training, position, status in profession, sources of information, techniques for collecting and analyzing data, etc.				X									
4) Compares sources of information.				*	*	*	X	X	#		X	X	X
a) Distinguishes between primary sources and secondary accounts.				X			X				X	X	
b) Looks for points of agreement and disagreement among authors and other sources.					X	X	X	#	#	#	X	X	X
c) Chooses the most reliable source of information in terms of bias and competency of authors.							X				#	#	
5) Identifies the types of sources which can be used by the historian and recognizes the limitations of each.						X	#				#		
6) Organizes and evaluates data from autobiographical and other introspective sources.								X		#	#		
7) Evaluates the use of fiction materials for social science.								X			#	#	#
c. Recognizes differences in the difficulty of proving statements.					*		X	X	X	*	*	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
1) Distinguishes between statements of fact and statements of opinion.					X		X	X				X	
2) Distinguishes between facts, inferences and value judgements.								X	X	X	X	X	X
3) Distinguishes between facts and estimates.							X			X	X	X	X
4) Differentiates between descriptive, causal, predictive, and normative questions and statements.										X			X
d. Identifies and examines basic assumptions to decide whether or not he can accept them.								X	X	X	X	X	X
1) Identifies cultural assumptions.										X	X	X	
4. Checks on the completeness of data and is wary of generalizations based on insufficient evidence. (Recognizes limitations of data.)			X	X		X	X	X	X	X	X	X	X
a. Rejects assumption of cause-effect relationship in correlations; looks for another factor which may affect both parts of correlation.									X		X	X	X
b. Rejects post hoc arguments; looks for another factor which may have caused the later event.									X		X	X	X
c. Rejects whole-part arguments and insists upon further data.									X				X
d. Rejects all-none (black-white) reasoning.													X
e. Identifies card-stacking.								X	X				X
f. Is alert to the use of biased years in making comparisons.									X				
g. Examines sample used in study to see if it is representative of the population for which generalizations are being made.								X	X		X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
h. Looks for causative factors other than those mentioned in source of information.								X	X		X	X	X
5. Detects inconsistencies in material.							X	X	X		X	X	X
V. THE STUDENT WHO USES EFFECTIVE GEOGRAPHIC SKILLS:													
1. Has a sense of distance and area.	*	*	*	*	*	X	*					X	*
a. Compares distances in general terms such as longer, shorter, or the same.	X												
b. Compares distances with known distances.		X	X	X	X	X						X	X
c. Compares area.		*	*	*	X	*	*					*	*
1) Compares areas with known areas.		X	X	X	X	X	X					X	X
2. Has a sense of direction.		*	*	*	*	X							
a. Knows cardinal directions.		X	X	X	X	X							
1) Determines cardinal directions by looking at the sun or by using a compass.		X											
b. Knows intermediate directions.			X	X	X	X							
c. Sets a directional course and follows it.	*	*	*	X	*								
1) Notices directions in his school building, and in his neighborhood.	X												
2) Uses landmarks in his locality to determine directions.	X												
3) Notices directions in relationship to his town.	X	X	X	#	X								
3. Interprets maps and globes.	*	*	*	*	*	*	*			*	X	*	*
a. Tells directions from maps and globes.	*	X	X	X	*	X							
1) Uses compass rose on map.	X												
2) Knows that the north pole is always north and the south pole is always south, regardless of the type of map projection.	X					X							

	K	1	2	3	4	5	6	7	8	9	10	11	12
3) Uses global grid to identify directions. (Knows that meridians run north and south and parallels runs east and west.)					X								
b. Orients a map:	*	*	*	*	*	X							
1) To the north.	X	X		X									
2) In the direction in which one is going.				X									
3) With another map or with a globe.		*		X	X	*							
a) Orients large-scale maps in their place on small-scale maps.		X				X							
c. Uses map grid.					*	*						*	
1) Uses map grid to locate places on a map.					X								
2) Uses map or globe grid to compare maps of different scale.												X	
3) Uses meridians to identify differences in time.												X	
4) Uses system of parallels to identify relative distances from equator.						X							
d. Recognizes or identifies distortions on maps.				X		X						X	
1) Identifies type of map distortion by comparing grid on map with grid on globe.						X						X	
e. Uses different types of map scales and is in the habit of estimating distances.		*	*	*	*	*						*	
1) Understands use of scale on maps.		X	X										
2) Uses map scale to estimate distances.				X	X	X							
3) Differentiates between small-scale and large-scale maps and knows when to use each.				X	X	X						X	
f. Interprets different types of map symbols.	*	*	*	*	*	X	*						
1) Understands the use of symbols to represent reality.	X	X		X									

	K	1	2	3	4	5	6	7	8	9	10	11	12
2) Identifies pictorial and semi-pictorial symbols.	X		X	X									
3) Recognizes symbols for land and water on map or globe.	X	X	X	X									
4) Understands the use of color-layer symbols to show elevation above sea level.		X				X							
5) Interprets map symbols in terms of legend.			X	X	X	X	X						
6) Interprets shading so as to visualize surface relief.				X	X	X							
7) Interprets color gradients on physical maps.					X	X							
8) Interprets map symbols for political boundaries.					X								
9) Interprets map symbols for cities and towns.			#		X								
10) Understands use of isometric lines in terms of map legend.						X							
g. Draws inferences from maps.					*	X	X			X	X	X	X
1) Draws inferences from maps by applying previously-learned concepts and generalizations.					#	X				#	#	X	#
2) Draws inferences from a comparison of different map patterns of the same area.					X	X	X			X	X	X	X
h. Selects the appropriate type of map projection (or globe) for a specific purpose.												X	
i. Locates places on maps or a globe.	X	X	X		X	X	*					X	
1) Uses the atlas index and global grid to locate places.					X	X						X	
a) Uses atlas.					X	#	#			#	#	#	#

	K	1	2	3	4	5	6	7	8	9	10	11	12
4. Visualizes images of basic map patterns.	X	X	X		X								
a. Visualizes map of simplified map pattern of his own town or neighborhood.	X												
5. Develops a system of regions to fit a particular purpose.						X						X	
6. Uses maps to depict information in order to identify patterns in data.							X			*	#		
a. Uses maps to organize and illustrate data.										X			
VI. THE STUDENT WITH A WELL-DEVELOPED SENSE OF TIME:													
1. Knows how time is measured.	*		*										
a. Understands system of seconds, minutes, and hours.	X												
b. Understands system of days, weeks, months, and years.	X												
c. Tells time by the clock.	X												
d. Understands decade and century.			X										
e. Understands and can use conventional system of chronology.											#	X	
2. Has a sense of the passage of time.	X		X	X			*				#	X	
a. Differentiates between past, present, future.			X	X									
b. Notes duration of periods of time or events.			X	*			X				#	*	X
1) Compares lengths of periods or events.				X			X					X	
3. Looks for relationships among events.			*	*	*	X	X		*		X	X	X
a. Makes and interprets timelines.			X	X	X		X		X			X	
1) Makes timeline of own life.			X										
2) Makes simple timeline of historical events.			X										
3) Makes parallel timelines.							X						
b. Looks for possible relationships among events.				X		*			*		*		*
1) Looks for relationships among events which occur in different places.						X			X		X		X

	K	1	2	3	4	5	6	7	8	9	10	11	12
4. Sees meaningful differences between eras; notes relationships within any era between institutions and cultural assumptions.											X	X	
VII. THE STUDENT WHO IS SKILLED IN ORGANIZING AND ANALYZING INFORMATION AND DRAWING CONCLUSIONS:													
1. Identifies differences in data.				X	X		X			X		X	X
2. Classifies or categorizes data.		X	X	X	X	X	X	X	X	X	X	X	X
3. Applies previously-learned concepts and generalizations to new data.		X	X	X	X	X	X	X	X	X	X	X	X
4. Makes participant-observer distinctions.							X				X		
a. Distinguishes between observer's construct and participants' views.											X		
b. When studying historical data, attempts to determine both the actors' interpretations of a situation and their behavior and also the anticipated and unanticipated consequences of such actions and the "real" situation of the actors.											X		
c. Tries to assess how many members of any society share how many norms and values how similarly.											X		
5. Draws inferences from data.		#	#	#	#	#	#	#		X	#	#	X
6. Uses simple mathematical and statistical devices for analyzing data.						X		X		X	X		X
a. Uses simple statistical device of mean (average) to analyze data but recognizes that it does not reveal the range and variation of data.						X		#					
7. Develops charts and graphs to clarify data and ideas or to aid in the analysis of data.					*	*		*		X	*		

	K	1	2	3	4	5	6	7	8	9	10	11	12
a. Makes graphs to help in analyzing data.					X								
b. Makes graphs to present information (to organize and clarify data).						X					X		
c. Constructs charts.								X					
8. Uses ideal types in analyzing social data.												X	
9. Tests, refines, and eliminates hypotheses, working out new ones where necessary.		*	*	*	*	*	X	*	X	*	*	*	*
a. Tests hypotheses against data.		X	X	X	X	X	X	X	X	X	X	X	X
b. Revises hypotheses where necessary.										X			
10. Studies his data to see if he needs to gather further data before coming to a conclusion.				X					X			X	
11. Checks back over his reasoning against basic principles of logic and looks for inconsistencies, limitations of data, and irrelevances in his work.										X			
12. Draws tentative conclusions from evidence from a variety of sources.								X		#	#	#	#
13. Generalizes from data.	X	X	X	X	X	X	X	X	X	X	X	X	X
a. Revises generalizations in the light of new data.								#	#	X	#	# X	#
14. Organizes his information according to some logical pattern.				X			X		X		X		X
15. Having determined the causes of a social problem, scrutinizes possible consequences of alternative courses of action, evaluates them in the light of basic values, lists arguments for and against each proposal, and selects the course of action which seems most likely to prove helpful in achieving the desired goal.									X	X	*	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
16. In considering situations calling for action, he decides whether or not one should act upon the basis of a theory by considering the extent to which the theory seems verified and the risks of acting or failing to act.													X
VIII. THE STUDENT WHO COMMUNICATES EFFECTIVELY WITH OTHERS:													
1. Clarifies his purpose or theme.				X		X							X
2. Organizes his material to fit his theme or topic and follows his organization.				X		X	X	X					X
(See also 14 under VII.)				X			X		X		X		X
3. Considers the audience for whom he speaks or writes.						X							X
4. Uses techniques to clarify ideas and arouse interest.				X		X			X				
5. Checks his writing for errors.				X									
6. Presents effective oral reports.			X	*		X		X	X	X	X		
a. Uses only a few notes for oral reports and discussions.				X							X		
b. Limits the length of a talk or his part in a discussion.				X									
7. Makes effective group oral presentations.									*	X	*		
a. Presents effective symposiums.									X		X		
b. Presents effective panel discussions.									X		X		
c. Presents effective roundtable discussions.									X				
d. Presents effective debates.											X		
IX. THE STUDENT WORKS EFFECTIVELY WITH OTHERS WHEN HE:													

	K	1	2	3	4	5	6	7	8	9	10	11	12
1. Empathizes with others, seeing things through their eyes, whether he accepts their viewpoint or sympathizes with them or not.		X		X	X	X	X				X		X
2. Helps create and preserve an atmosphere in which all members of a group feel secure and anxious to participate.				X		X			X	X			
a. Is considerate of other people's feelings without giving up his own principles.										X			
b. Criticizes ideas, not personalities, and does so tactfully.										X			
c. Respects the rights and opinions of others.										X			
3. Is willing to study ideas objectively, without becoming upset by criticism of his ideas; is able to profit from criticism.									X				
4. During discussions, keeps to the point, helps move the discussion along, and searches for points of agreement.								X	X				
5. Accepts his share of responsibilities for the work of the group; participates actively without trying to dominate.				X		X				X			
a. Participates actively without trying to dominate.						X				X			
b. Schedules work on group projects and keeps to schedule.							X						

SEQUENTIAL DEVELOPMENT OF ATTITUDINAL BEHAVIORS

	K	1	2	3	4	5	6	7	8	9	10	11	12
I. Scholarly Values Inherent in Social Sciences													
1. Is curious about social data and human behavior and wishes to read and study further in the social sciences.	X	X	X	X	#	X	X	X	X	X	X	X	X
2. Is committed to the free examination of social attitudes and data. Searches actively for different points of view and interpretations. Values independent thought.				X	X		#	X	X	X	X	X	X
3. Is sceptical of "conventional truths" and demands that widely-held and popular notions be judged in accordance with standards of empirical validation.							X	X	X	X	X	X	X
4. Is sceptical of the finality of knowledge; considers generalizations and theories as tentative, always subject to change in the light of new evidence.				X		X	#	X	X	X	X	X	X
a. Feels that he should reserve judgement or postpone the formation of even a tentative conclusion if he has not gathered adequate, valid, reliable information.				X									
5. Values objectivity and desires to keep his values from affecting his interpretation of evidence, although recognizing the importance role of values in the process of making decisions about problems demanding action.							X	X	X	X	X	X	X
(Values objectivity.)					X								
a. Respects evidence even when it contradicts prejudices and preconceptions.			X		X	X	X	X	X	X	X	X	X
b. Searches for evidence to disprove hypotheses, not just to prove them.						X			X	X			X
6. Values the scientific method and rational thought as applied to social as well as to natural data.								X	X	X	X	X	X
7. Evaluates information and sources of information before accepting evidence and generalizations.		X	X	*	X	X	X	*	X	X	X	X	X

	K	1	2	3	4	5	6	7	8	9	10	11	12
8. Values knowledge for the sake of knowledge, as a means of helping man understand the world in which he lives.												X	X
II. Attitudes Growing Out of Knowledge of Social Sciences													
1. Believes that the social sciences can contribute to man's welfare by providing information and explanatory generalizations which help them achieve their goals.								X	X	X	X	X	X
2. Is sceptical of theories of single-factor causation in the social sciences.				X	X	X	X	X	X	X	X	X	X
3. Is sceptical of panaceas.				X			X	X	X	#	X	X	X
4. Is sceptical of simplistic moral judgements.							X						
5. Values change as a means of achieving goals but does not equate change with progress.		X	X								X	X	X
6. Is patient with attempted reforms; looks at current situations from the perspective of the time needed for changes in the past.												X	X
7. Believes in the possibilities of improving social conditions.								X		X	X	X	X
8. Appreciates and respects the cultural contributions of other countries, races, and religions.		X	X	X	X	X	X	X				X	X
9. Accepts diversity as natural.	#	X	X	#	#		#	#		#		#	#
10. Believes that people of different interests, abilities, and backgrounds can contribute to American society.				X		X	X	X			X		X
III. Public Values													
1. Is alert to incongruities, recognizes problems, and is concerned about them. (Listed as skill in paper on skills but has attitudinal aspects.)								#	#	X	#	#	#
2. Feels a sense of responsibility for keeping informed about current problems.								X	X	X		X	X
3. Has a sense of responsibility for taking informed action about problems confronting the nation.								X	X			X	X
a. Is committed to an attempt to achieve goals related to													X

	K	1	2	3	4	5	6	7	8	9	10	11	12
his values.													
4. Values human dignity.	X	X	X	X	X	X	X	X	X	X	X	X	X
5. Is sensitive to the feelings of others.	X			X			X	X			#		#
6. Treats people as individuals, not as members of a particular group.							X	X					X
7. Evaluates actions, proposals, and events on the basis of their effects upon individuals as human beings.							X	X	X	X	X	X	X
8. Values institutions as a means of promoting human welfare, not because of tradition; is willing to change institutions as times create new problems.									X		X	X	X
9. Believes in equality of opportunity for all.							X	X	X	X			X
10. Respects rights of others.													X
a. Desires to protect the rights of minorities.							X	X	X		X	X	X
11. Supports freedom of thought and expression.								X	X		X	X	X
12. Values procedural safeguards needed for a fair trial of those accused of crimes.				X					X			X	X
13. Accepts the will of the majority until it can be changed by peaceful means.				X					X				
14. Has a reasoned loyalty to the U.S. and desires to make it an ever better place in which to live.									X		X	X	X
15. Cooperates with others toward common goals, but rejects unthinking conformity.													X
16. Holds himself accountable for his own actions.													X
17. Attempts to identify, examine, and clarify his own values and to work out a consistent value system.													X
18. Attempts to work out a considered philosophy of life.													X
19. Values initiative, hard work, honesty; but does not scorn those who lack ability or cannot find jobs.			X							X			

APPENDIX 10 Data on Questionnaire Study of Year-Long In-Service Training Program in Minnesota

Table 1. The Usefulness of the In-Service Training Program as Perceived by the Participants*

Question: How useful do you think the overall E.R.D.C. program has been in helping you to teach the course at your grade level?

Grade Level	Very Useful	Useful	Of Little Value	No Value	Misunderstood Question**	No Response
K	4	0	0	0	0	0
1	9	1	0	0	0	0
2	4	2	0	0	1	1
3	4	3	0	0	0	0
4	4	3	2	0	0	0
5	5	4	0	0	1	1
6	5	4	1	0	0	0
7	5	7	0	1	0	1
8	7	1	0	0	0	0
9	3	2	0	0	1	1
10	2	4	2	1	0	0
11	6	3	0	0	0	0
12	3	2	0	0	0	0
Total	61	36	5	2	3	4
Per cent of total	55	32	4½	2	3	3½

* Answers to open-ended question grouped.

** Related question to total E.R.D.C. program rather than to this in-service training program.

Table 2. The Usefulness of Specific Aspects of the In-Service Training Program as Perceived by Respondents

Question: In terms of specific aspects of the program, how would you rate the following?

Aspects of Program	Total Responses of All Participants							
	Very useful	Very useful to useful	Useful	Useful to Little value	Of little value	Little to no value	No value	No response
a. Receiving knowledge of the Project rationale through large group presentations.	17	1	60	1	27		4	1
b. Receiving knowledge of the Project rationale through small group presentations.	64	1	40		6			
c. Receiving content background through your small groups.	58	1	41		8	1	2	
d. Receiving knowldege of reading materials through your small groups.	68	1	37		4	1		
e. Receiving knowledge of A-V materials through your small groups.	63	1	38		9			
f. Receiving knowledge of specific teaching procedures through small groups.	56	1	41		10		3	
g. Receiving help in your ability to develop materials through your small groups.	51	1	44		11		4	

Table 3. Importance of In-Service Training Program As Viewed by Participants

Question: Do you think you could have adequately taught the projects units:

(a) Without the 1967 Spring Sessions?

Grade Level	Yes	Yes, but difficult	?	No	Per cent No
K				4	100
1	8			2	20
2	1			7	88
3	3			4	57
4	2			7	78
5	5		1	5	45
6		1		9	90
7	6	1	1	6	43
8	3*			5	63
9	2			5	71
10	5			4	44
11	6			3	33
12	2			3	60
Total	43	2	2	64	58

(b) Without the extensive in-service training program carried on throughout the year?

Grade Level	Yes*	Yes, but difficult or not as well	?	No	Per cent No
K				4	100
1	1			9	90
2		2		6	75
3	1			6	86
4	1			8	89
5			2	9	82
6	1	1		8	80
7	3	1	1	9	64
8				8	100
9				7	100
10	3		1	5	56
11	3			6	66
12	1			4	80
Total	14	4	4	89	80

---

*One person who said "yes" said his University teaching preparation made spring sessions unnecessary.

Table 4. Length of Each In-Service Training Session As Perceived by Participants

Question: Do you think that the length of each bi-weekly session was satisfactory? If not, how would you change it?

Grade Level	Reactions of Participants				
	Too long	Too short	Satis-factory	No Response	Adjust from time to time
K	0	0	4	0	0
1	1	0	9	0	0
2	0	0	8	0	0
3	2	0	5	0	0
4	3	0	6	0	0
5	0	0	11	0	0
6	0	0	9	0	1
7	7	0	6	1	0
8	3	1	4	0	0
9	1	0	6	0	0
10	1	0	8	0	0
11	1	0	8	0	0
12	0	0	5	0	0
Total	19	1	89	1	1
Percentage	17	1	80	1	1

Table 5. Length of Total In-Service Training Program in Terms of Number of Sessions

Question: Do you think the number of sessions has been satisfactory? If not, how would you change it?

Grade Level	Reactions of Participants		
	Fewer Needed	More Needed	Satisfactory Number
K	0	0	4
1	0	0	10
2	0	0	8
3	1	0	6
4	1	0	8
5	0	0	11
6	1	0	9
7	4	0	10
8	0	0	8
9	1	0	6
10	1	0	8
11	1	0	8
12	1	0	4
Total	11	0	100
Percentage	10	0	90

Table 6. Effects Upon Teaching As Perceived by Participants

Question: If you were to teach again the course you taught before using the Project Social Studies course, do you think you would teach it any differently? If so, how?

Grade Level	Percentage Responses by Grade Level				
	Yes	No	Misunderstood Question	Not Applicable*	Not Answered
K	75	0	25	0	
1	90	10	0	0	
2	100	0	0	0	
3	71	0	14	14	
4	56	11	11	11	11
5	82	9	0	9	
6	80	10	10	0	
7	93	7**	0	0	
8	88	12	0	0	
9	86	0	0	14	
10	67	22	0	0	11
11	78	0	11	11	
12	100	0	0	0	
Per cent of Total Group of Participants	81	7	5	5	2

* New teacher or had not taught at same grade level before.

** Said using similar approach earlier so not much change.

Table 7. Different Ways of Teaching Old Courses, Grouped by Type*

	Per cent Mentioning
Use inquiry approach	33
Use wider range of materials, not one textbook	28
Use more student participation	11
Greater emphasis upon concepts and generalizations, not isolated data	15
Teach more skills	10

*Only those suggested by at least ten per cent of the participants in response to an open-ended question are listed here. Fifteen other ways were mentioned by from one to eight participants.

Table 8. Participant's Reactions to New Course

Question: Would you like to teach Project Social Studies Courses next year?

Grade Level	Percentages Responses by grade			
	Yes	In Modified Form	No	?
K	100	0	0	0
1	89	0	11	0
2	100	0	0	0
3	100	0	0	0
4	89	11	0	0
5	100	0	0	0
6	90	0	10	0
7	87	0	7	7
8	87½	0	12½	0
9	67	33	0	0
10	33	10	56	0
11	100	0	0	0
12	80	20	0	0
Per cent of Total Group of Participants	85	4	8	3

Table 9. Differences Between New Curriculum and Old Curriculum Used in Schools of Participants*

New Curriculum	Per cent of Respondents Mentioning
Use of Inquiry	32
More Interesting and Relevant	26
Emphasis upon skills and thinking processes	23
Use of many media	23
Emphasis upon concepts and generalizations	17
Emphasis upon sequence	14
More pupil participation and responsibility	13

* Differences mentioned by at least ten per cent of the participants to an open-ended question are listed here. Another ten differences were noted by one or more participants.

Appendix 11. An Example of One Page Showing Development of Generalizations in One Course

	Over-view	Pol. Part.	Exec.	Leg.	Jud.	Local
11. Decision-making in a large complex society is shared by several groups and is subject to varying influences.		X	X	X		
a. The vote decision of an individual can be important in affecting the outcome of an election.		X				
b. The institutions of government constitute the arenas or the structure in which authoritative decisions of the political process are made; they affect those decisions by limiting or granting access to decision-makers, setting the procedures of decision-making, setting the powers of decision-makers, informally distributing power among decision-makers, and setting the norms to be followed by decision-makers.		X	X	X	X	X
c. Any decision is in part a product of the internalized values, the perceptions, and the experiences of the persons making the decision.	Sub-pt.	X	X	X	X	X
d. Decision-making is affected by other people, including members of primary groups.		X				
1) The decision-maker reacts to pressures from other decision-makers and from people outside of government.			X	X	X	X
e. Executive decisions are limited by many factors: permissability, available resources, available time, available information, and previous commitments.			X			
f. An official may experience role conflict because of the many roles he must assume.			X	Sub-pt.		
1) The representative faces conflicting demands to represent the district which elected him, the party on whose ticket he ran, the entire political system to which he takes his oath of office, and his own attitudes.				X		

OE 6000 (REV. 9-66)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

ERIC REPORT RESUME

(TOP)

ERIC ACCESSION NO.				
CLEARINGHOUSE ACCESSION NUMBER	RESUME DATE 8-19-68	P.A.	T.A.	IS DOCUMENT COPYRIGHTED? YES ☐ NO ☒ ERIC REPRODUCTION RELEASE? YES ☒ NO ☐

TITLE

Preparation and Evaluation of Social Studies Curriculum Guides and Materials for Grades K to 14. Final Report.

PERSONAL AUTHOR(S)

West, Edith, and others.

INSTITUTION (SOURCE)

University of Minnesota, Minneapolis, Minn., College of Education

SOURCE CODE

REPORT/SERIES NO.

OTHER SOURCE

SOURCE CODE

OTHER REPORT NO.

OTHER SOURCE

SOURCE CODE

OTHER REPORT NO.

PUB'L. DATE 19-Aug.-68 **CONTRACT/GRANT NUMBER** USOE-OE-3-10-106 HS-045

PAGINATION, ETC.

453 p.

RETRIEVAL TERMS

IDENTIFIERS

ABSTRACT

The Minnesota Social Studies Curriculum Center has developed a social studies curriculum for grades K-12. Recommendations for grades 13-14 have not been made yet. The curricular framework provides continuity and sequence for those key concepts, generalizations, skills, and attitudinal behaviors identified as goals for the program. The curriculum provides increased emphasis upon the non-western world, behavioral sciences, structure in disciplines, the study of value conflicts, teaching pupils inquiry methods, and inquiry teaching strategies. The program is designed for pupils of different ability levels. The Center has prepared resource units and a general guide at each grade level and has written some pupil materials to supplement those available commercially.

Courses and units have been field-tested in local schools and, to some extent, in several other school systems. Materials have been revised in the light of teacher feedback. The Center has experimented with an in-service training program which uses teachers who have taught the new courses to train other teachers. Questionnaire studies have been used to obtain reactions of teachers to materials and to in-service training programs. Two careful evaluation studies have been conducted, one of the seventh grade sociology course and one of the primary grade materials.